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# TRANSACTIONS

—— OF THE ——

# MEDICAL SOCIETY,

## OF THE STATE OF

# NORTH CAROLINA.

## THIRTY-NINTH ANNUAL SESSION,

—— HELD AT ——

WILMINGTON, N. C.,

May 17th, 18th and 19th, 1892.

WILMINGTON, N. C.:
JACKSON & BELL, STEAM POWER PRESSES.

1892

# PLACES AND TIME OF MEETING,

## WITH NAME OF PRESIDING OFFICERS,

——FROM THE——

# INAUGURAL CONVENTION IN 1849.

The circular letter calling a meeting of the State Medical Convention was issued 7th February, 1848, signed by J. B. Jones, W. H. McKee, N. J. Pittman, J. A. McRae and R. B. Haywood.

STATE MEDICAL CONVENTION.

Frederick J. Hill, M. D., Brunswick county, Presiding Officer. Held in Raleigh, April 16th, 1849.

MEDICAL SOCIETY STATE OF NORTH CAROLINA.

| No. of Meeting. | Presiding Officer. | Place and Date of Meeting. |
|---|---|---|
| 1 | Edmund Strudwick, M. D., *Hillsboro* | Raleigh, April 3, 1850. |
| 2 | Edmund Strudwick, M. D. | Raleigh, May 21, 1851. |
| 3 | James E. Williamson, M. D., *Caswell* | Raleigh, May 11, 1852. |
| 4 | James E. Williamson, M. D. | Raleigh, May 17, 1853. |
| 5 | James H. Dickson, M. D., *Wilmington* | Raleigh, May 9, 1854. |
| 6 | James H. Dickson, M. D. | Salisbury, May 15, 1855. |
| 7 | Charles E. Johnson, M. D., *Raleigh* | Raleigh, May 13, 1856. |
| 8 | O. F. Manson, M. D., V. P., *Granville* | Edenton, April 15, 1857. |
| 9 | W. H. McKee, M. D., *Raleigh* | Newbern, May 18, 1858. |
| 10 | W. H. McKee, M. D. | Statesville, May 10, 1859. |
| 11 | N. J. Pittman, M. D., *Tarborough* | Washington, April 26, 1860. |
| *12 | J. J. Summerell, M. D., *Salisbury* | Morgantou, May 8, 1861. |

*There was no quorum in 1862. Dr. J. J. Summerell, of Salisbury was President that year and meetings were not resumed until the year after the close of the war, 1866.

13—J. J. Summerell, M. D.....Raleigh, June 5, 1866.
14—W. Geo. Thomas, M. D., *Wilmington*...Tarborough, May 15, 1867.
15—S. S. Satchwell, M. D.....Warrenton, May 20, 1868.
16—E. Burke Haywood, M. D., *Raleigh*.....Salisbury, May 12, 1869.
17—Chas. J. O'Hagan, M. D., *Greenville*....Wilmington, May 25, 1870.
18—Hugh Kelly, *Statesville*.....Raleigh, May 9, 1871.
19—P. E. Hines, M D., *pro tem.*, *Newbern*..Newbern, May 16, 1872.
20—M. Whitehead, M. D., *Salisbury*.....Statesville, May 20, 1873.
21—W. A. B. Norcom, M. D., *Edenton*.....Charlotte, May 19, 1874
22—J. W. Jones, M. D., *Tarborough*.....Wilson, May 18, 1875.
23—Peter E. Hines, M. D., *Raleigh*.....Fayetteville, May 3, 1876.
24—George A. Foote, M. D., *Warrenton*.....Salem, May 22, 1877.
25—R. L. Payne, M. D., *Lexington*.....Goldsborough, May 14, 1878.
26—Charles Duffy, Jr., M. D., *Newbern* .....Greensborough, May 20, 1879.
27—J. F. Shaffner, M. D., *Salem*.....Wilmington, May 11, 1880.
28—Richard B. Haywood, M. D., *Raleigh*...Asheville, May 31, 1881.
29—Thomas F. Wood, M. D., *Wilmington*..Concord, May 9, 1882.
30—J. K. Hall, M. D., *Greensboro*.....Tarborough, May 15, 1883.
31—A B. Pierce, M. D., *Weldon*.....Raleigh, May 20, 1884
32—W. C. McDuffie, M D., *Fayetteville*.....Durham, May 19, 1885.
33—Joseph Graham, M. D , *Charlotte*. ..... Newbern, May 18. 1886.
34—Henry T. Bahnson, M. D., *Salem*.....Charlotte, April 13, 1887.
35—T. D. Haigh, M. D., *Fayetteville*.....Fayetteville, May 8, 1888.
†36—W. T. Ennett, M D., *Burgaw*.....Elizabeth City, April 16, 1889.
37—Geo. G. Thomas, M. D., *Wilmington*...Oxford, May 27. 1890.
38—Richard H. Lewis, M. D., *Raleigh*.....Asheville, May 26, 1891.
39—W. T. Cheatham, M. D., *Henderson*.....Wilmington, May 26, 1892.

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†Dr. Ennett was severely injured by falling into the fire during an epileptic seizure en route to the meeting and could not preside at this meeting. He died from the effects of the injury.

# OFFICERS AND COMMITTEES.

## SESSION 1892.

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### PRESIDENT.

Wm. T. Cheatham, M. D., Henderson.

### VICE PRESIDENTS.

1st. Thos. S. Burbank, M. D., Wilmington.
2nd. J. W. Long, M. D., Randleman
3rd. W. H. H. Cobb, M. D., Goldsboro.
4th. W. D. Hilliard, M. D., Asheville.

### CORRESPONDING AND RECORDING SECRETARY.

J. M. Hays, M D., Oxford.

### TREASURER.

C. M. Poole, M. D., Salisbury.

### ORATOR.

J. W. Long, M D., Randleman.

### ESSAYIST.

Oscar McMullan, M. D., Elizabeth City.

### BOARD OF CENSORS.

W. C. McDuffie, M D., Fayetteville.
T. E. Anderson, M. D., Statesville.
W. H. H. Cobb, M. D., Goldsboro.

## PUBLICATION.

Thomas F. Wood, M. D., Wilmington.
Thomas S. Burbank, M. D , Wilmington.
Geo Gillett Thomas, M. D., Wilmington.
J. Mac. Hays, M. D., Oxford.

## NECROLOGY.

W. H. Lilly, M. D., Concord.
J. A. Rhodes, M. D.,
H. H. Harris, M. D., Wake Forest.

## CREDENTIALS.

Thomas S. Burbank, M, D., Wilmington.
Albert Anderson, M. D., Wilson.
W. C. Galloway, M. D., Winston.
I. G. Riddick, M. D., Youngsville.

## FINANCE.

M. P. Perry, M. D., Macon.
D. T. Tayloe, M. D., Washington.
S. D. Booth, M. D., Oxford.

# ERRATA.

Page 25, 18th line from top, read "there are *not* a few."

Page 35, Dr. Alston desired to say that none of the preceding speakers had spoken of the use of chloral and bromide of potassium in combination. He had used this treatment, together with moderate blood-letting, successfully in three cases in the past twelve months.

Page 36, 19th line from bottom after "threatened,' insert (,)

Page 36, 18th line from bottom, after "convention," omit (,)

Page 36, 17th line from top, for "threatened it" read "threatened blood-letting"

Page 36, 14th line from bottom, before "women" insert urine of"

Page 56, 2d line from top, for "I" read "J."

Page 129, 3d line from top, read "R. J. Noble"

In regard to the "Report on Obstetrics," page 176, the Publication Committee desire to make the following explanation. The article is by Dr. C. M. Poole, Salisbury, N. C., and was presented at the meeting of the Society in 1886. It was found among the other Society papers for this year in Dr. Wood's office; there was no other report from that Section; this paper had no name and was perfectly clean, showing it had never been through a printer's hands, so the Committee had no hesitation in crediting it to the regularly appointed Chairman of that Section. The error is unfortunate, but not unreasonable, considering the number of peculiar coincidences.

# MINUTES

—OF THE—

## THIRTY-NINTH ANNUAL SESSION

——OF THE——

# Medical Society of North Carolina.

WILMINGTON, N. C., May 17, 1892.

FIRST DAY—Morning Session.

The Society was called to order at 11 o'clock by Dr. Thomas F. Wood, Chairman of the Committee of Arrangements, Dr. W. T. Cheatham, M.D., of Henderson, being in the Chair, and Dr. Julian M. Baker, of Tarboro, acting as Secretary in the absence of Dr. J. M. Hays.

The Convention was opened with prayer by Rev. Thomas H. Pritchard, D.D., pastor of the First Baptist church of Wilmington.

Dr. Geo. Gillett Thomas, of the local profession, then delivered the following

ADDRESS OF WELCOME.

*Gentlemen of the Medical Society of North Carolina:*—I am the delegated gatekeeper for the medical profession of Wilmington on this occasion, and I stand at the portals to declare to you that your presence in our midst brings us much pleasure. We are of your number, and it fittingly becomes us to tell the good people of this ancient and honorable borough the great worth of the organization your zeal has created.

There has never been a time in the history of the Society when the busy and hard-working physicians constituting its body corporate have not been earnestly strong in the promotion of preventive

as welll as curative medicine, and seeking to enhance the welfare of the many communities committed to their charge, and the growth and character of your membership, is ample testimony of the esteem in which this Association is held by the profession in North Carolina.

Recognizing your merits, and partaking of the general sentiment that you are among the chief guardians of our people and an acknowledged aid to the executive officers of the State, we claim that you deserve equal rank with the other learned professions; that you do such duties of mercy and loving-kindness as entitle you to a generous consideration as high as that accorded the learned jurist or the wise legislator. No community, then, can fail to realize that your advent into their midst is an event of note and one calculated to redound to the prosperity of those who are your hosts.

From all time, since the settlement of this section, there has been an unwritten law that the stranger and wayfarer seeking a resting place here, if he possessed the pass-word that would make known his rights, should be courteously received in the borough. There are no people on the green earth whose generous souls are more alive to the rights of hospitality than the inhabitants of Wilmington. These are the customs handed down from the fathers and their descendants and those not altogether to the manner born, but thoroughly engrafted upon the ancient stock, have long gladly lent themselves to all these gentle courtesies. For they have made life among these hills of sand and savannahs abloom with flowers; like the one, white and pure; and like the other, full of beauty and redolent with pleasant memories.

There is a legend that no stranger to whom was given to drink of the water that flows from an old spring near by could ever forget the place, or divest himself of a lingering desire to return again to its people. The story is full of beauty. The spring in the growth of the town has been abandoned, but the essence of the story still lives in the genial warmth of people's hearts, and in the open doors of Wilmington's home to all who deserve to enter and be made worthy guests at the fireside. There are near at hand sources of recreation which we shall offer you leading to the enlivening breezes of the sea-coast, and landing you at the very edge of the great ocean.

For the timid, if such there be in this assembly, there is the still water and soft air of Wrightsville—great refrigerators in these hot days. For the more venturesome, the surf forever sings a song of invitation, and in its roll those of you who shall dare its waves will find exhilaration and delight. The cold winds of the winter are forever tempered by our genial sun, and in tone the long heats of the summer's day are made tolerable by the cool, sweet breezes that sweep in from the sea. To us this is the dear spot of the earth, and we offer its use to you during your stay, assured by our faith in it that it will regale you.

Gentlemen of the Medical Society of the State of North Carolina, in the name of the Wilmington Medical Society, and for the people of the town, I declaee the gates to our home and hospitality not ajar, but wide open. To the inner courts I bid you welcome.

### RESPONSE.

Dr. R. L. Payne, Jr., of Lexington, responded in the following words:

It has been made my pleasant duty, sir, to respond to the generous words in which you have extended to us the welcome and hospitality of your city, and yet, moved as I am by a host of varied and pleasing emotions, I find it impossible to choose suitable words in which to give expression to all the gratification which the North Carolina Medical Society can but feel because of such an open-handed, warm-hearted reception. To many of us, sir, this occasion is but the renewing of old pleasures, for once in each decade since its organization our Society has convened within your gates, and each time your citizens have striven to surpass all others in their manifestations of sympathy with the aims and objects of our Association and in their kindly care for our welfare and our happiness.

Those of us who for the first time are come among you have received the traditions of the fathers, and are filled with glad anticipations of pleasure and profit, already reaching a happy fruition in the joyful reunion of friend with friend and in the inspiration to higher and nobler achievement which spring up unbidden in every breast as we listened to your warm-hearted greeting and earnest God-speed. And yet, sir, I would not have you think there is anything of surprise mingling with our deep sense of pleasure,

for since the old colonial time Wilmington has been noted in history and in legend for her devotion to hospitality and many an olden tale of lavish entertainment is told of those who first laid the corner-stone of this grandest city of our grand old State. Indeed, sir, apart from mere questions of pleasure, we feel that we enjoy a distinguished honor in being your guests, for the people of New Hanover have always been leaders in all that is generous, noble and true; her sons have always led the van with those who resisted oppression in every form, and in the days when British tyranny ground down our people and would have rivetted her fetters upon us, none showed firmer opposition than this good old county of New Hanover. Indeed, in every emergency which has arisen in our country's history the people of Wilmington have always been in the front, ready to do and to die, to devote fortune and life to the cause of right, and so her sons have made themselves an imperishable record for all that we most admire in human endeavor and achievement.

That we delight, sir, to honor the memory of good John Ashe, of Cornelius Harnett, of William Hooper, of Edward Dudley, and of the many other illustrious sons of this good old city who have helped to shape the destinies of our State and our country, and we will not quickly forget how, in the dark days of the war between the States, when our people, moved by a deep sense of wrong, made war for freedom and for right; when our beautiful Sonthland was clouded with the smoke of battle and her almost every hill and vale bathed in the crimson tide of life-blood poured out in her defense by her devoted sons, then Wilmington, true to her record, not only sent forth the pride and glory of her manhood to die in glorious strife, but once more, as in the old days of the Revolution, she is called upon to give aid in the councils of the new nation and her distinguished son, George Davis, brought lasting credit to the Old North State as Attorney General of the Confederacy.

But, sir, amid all your glorious record we point with peculiar pride to the names of three of Wilmington's physicians and declare that, for true heroism, for unflinching courage and steadfast devotion to duty, they deserve place among the heroes of the world. In the days when the dread scourge, yellow fever, came as a fell destroyer in your midst; when your loved ones were dying by the score; when desolation sat at the hearthstone and the wail of the mother-

less babe found a refrain in the grief-stricken cry of the mother bereft of the love of her first-born, or the groan of agony wrung from the lips of the poor old father as he saw the son, the pride and joy of his life, fall a victim to the terrible, insidious foe, then, the physicians of Wilmington, true to the demands of their high calling, hesitated not for a moment, and while others were flying in search of safety, they cast their lives into the breach, and during all the dark days of the pestilence they stood undaunted at their posts fighting for the lives of your people. Men of Wilmington, you can find no nobler picture of self-abnegation and unflinching courage in all the annals of the ages. In the pride and pomp of wars; under the excitement of martial music; in the heat of battle, with soul athirst for glory, men charge undaunted upon the very cannon's mouth; rush eagerly into the very jaws of death, and, dying, win undying fame. This is a grand and glorious sight, but after all does this compare with the courage of him who fights "with the pestilence which walketh in darkness"? Go, watch the weary physician making his ceaseless round among the sick in time of the dread epidemic! All about him are flying from the terrible enemy; his martial music is the sad, sad groans of agony coming from the lips of the dead and dying; his only inspiration the love he bears his fellow-man; almost certain end to die "unwept, unhonored and unsung," amid the great mass of sufferers, and yet day after day he stands at his post fighting for humanity, with no thought of emolument, no hope of fame, with only his watch-word and duty as his battle cry.

I tell you, men of Wilmington, amid all your galaxy of great names, there are no brighter stars than our own revered Anderson, our own honored Dickson, our own loved and honored Thomas. Go, teach your children to revere their memories; go, deck the brow of the living and the graves of the dead heroes with laurel and with bay; go, write their names high in your annals of fame, and beneath the scroll inscribe in living letters, "These gave life and health for the lives of our city. But, sir, I beg your pardon, if, in the contemplation of those grand old heroes, whose life-work in your midst has left such a halo of glory about your city, I should have for the time being seemed forgetful of the happy duty of the hour. In the name of the North Carolina Medical Society let me once more express our most grateful thanks to you for the welcome

you have given us; for the encouragement vouchsafed by your interest in our work, and, in the name of my colleagues, accept our most cordial invitation to grace our sessions with your presence, when you will add strength to our deliberations by expressions of your wisdom.

The President then called the Society to order for business.

On motion of Dr. W. W. Lane, Dr. F. S. Martindale, of Staten Island, was extended the courtesies of the Society.

Drs. J. E. Michael, J. W. Chambers and E. Geer presented the proper credentials and were admitted to the sessions of the Society as Delegates from the Medical and Chirurgical Faculty of the State of Maryland.

Dr. Wood announced for the Committee of Arrangements that a daily programme would be printed, and that the Society was extended all the privileges of the building, including the gymnasium and the baths. He wanted the members to feel perfectly at home.

A communication was read from the officers of the Cape Fear Club extending the privileges of their rooms to the Society; also one from the Wilmington Library Association to the same effect.

Dr. W. W. Lane, Surgeon of the Wilmington City Hospital, invited the members to visit his Institution.

On motion of Dr. Bahnson, the thanks of the Society were extended to the officers of the different institutions and to Dr. Lane for their kind invitations.

The President then read the

## PRESIDENT'S ADDRESS.

*Gentlemen of the Medical Society of the State of North Carolina:*—The distinguished honor conferred upon me at the Thirty-eighth Annual session of this Society, brings with it as your presiding officer the agreeable duty of extending to you my heartfelt and cordial greeting to this, our Thirty-ninth Annual reunion. The presidency of the Medical Society of the State of North Carolina, ever an honor upon whomsoever conferred, becomes especially so when spontaneously bestowed by the unanimous voice of the largest membership of the Society ever assembled in one meeting. To be thus honored arouses within me feelings of gratitude which a tongue inspired with silvery chimes of human thought could have no power to express.

Permitted once more to assemble in this highly favored commercial center, with its genial and salubrious climate, hospitable homes and courtly people, I feel assured all come with one common purpose, namely, the advancement of Science, the upholding of the honor and dignity of our noble Art, and the promotion of the good of our fellow man. In making a retrospective glance over the long list of addresses by my distinguished predecessors, I find almost every subject of medical interest has been discussed either directly or indirectly, from the times of remote antiquity down to the duties and functions of the present Examining Boards of the different States.

This last mentioned subject is one of vast interest to the medical profession and of far more importance to the people of the States, inasmuch as it was especially for their protection against incompetent and unworthy members of the profession, that the laws regulating the practice of medicine were passed. So far as North Carolina is concerned we have nothing but praise and congratulations to offer for the manner in which the law has been observed. The applicants for license, with few exceptions, who have been so unfortunate as not to be fully equipped to meet the requirements of the law before entering upon the grave responsibilities incumbent upon a practitioner of the healing art, have submitted with a grace worthy of the plaudits and emulation of all good and law-abiding citizens. It only remains for the loyal, prudent and conservative members of the profession, aided by an enlightened, intelligent and humane citizenship, unbiased by extraneous or fortuitous circumstances, to see to it that the law be enforced in the fullness of its letter and spirit, ever holding the scales of justice evenly poised that its good name be in nowise stigmatized, and we confidently predict that the time is not far distant when all opposition will have ceased, and the high standard of medical education in North Carolina will be the pride and boast of an enlightened and appreciative citizenship.

Inasmuch as a large number of young men of late years have been admitted to the practice of medicine in this State, and so many have become members of this Society, I shall direct my remarks in a line that perhaps may prove profitable to some of them at least, and should any of the older members fall within the range of my reflections, I hope they too will profit thereby.

The ultimate aim of all medical research is the treatment of disease. It is eminently proper that a medical man be generally well informed; but what is to be more devoutly wished for is that he shall be a skillful practitioner. It is quite possible to be the one without being the other. The combination is what we hope to see commonly accomplished. The tendency of recent teachings has been rather to produce the first, leaving the second quality to develope itself or remain in a condition of imperfect evolution as might fall out. We constantly hear it asserted that the highly educated medical men of the present generation are not more successful in practice than their less accomplished, but more practical, predecessors. Even members of the profession are to be found who gravely assert that the man under whose treatment they would place themselves if seriously ill is the old-fashioned general practitioner.

This, gentlemen, is a very serious reproach to all our recent advances in scientific medicine; to our modern instruments of precision in diagnosis; and also to our progress in rational therapeutics, with the vast list of valuable remedies added to our armamentarium in late years. In order to understand how progress in one direction may exist without corresponding advances in other directions, indeed, with a certain amount of retrograding in some respects, we must clearly distinguish between medicine as an art and medicine as a science.

We now have some precise notions about the rational consequences of valvular disease of the heart, and see why one set of consequences results from a defect in one valve, and why a totally different series of results follows imperfection in another valve; we have also made rapid progress in distinguishing the locality of disease in the brain from the various disturbances produced in it, according to the functions of the part affected; we have learned the important lesson that much of the disease of advanced life is due to a want of that compensatory equilibrium so necessary to a proper elimination of nitrogenized waste.

The relation of mental conditions to bodily derangements has dawned upon us in the ordinary diseases of the sane. Physiological inquiries in many instances have successfully pointed out to us the right direction of our therapeutic measures and lighted up areas that could never be successfully illumined by empiricism.

*En passant*, I will call your attention to some familiar illustrations of this. For instance, the treatment of angina pectoris by nitrate of amyl was the logical sequence of certain physiological inquiries as to the action of this drug, together with some very exact observations as to the actual condition of the circulation during the attack. The synthesis thus erected by Brunton and successfully applied in the wards of the Royal Infirmary of Edinburg is an excellent and most praiseworthy illustration of the power of well-conducted physiological inquiry in practical medicine.

Leibreich by experiment gave us chloral hydrate, an hypnotic of much value, to say nothing of analgesics, antipyretics and other valuable remedies that have been added by others following up the same line of inquiry and physical investigation. The stethoscope, the thermometer, the laryngoscope, the sphygmograph, the urinometer and cognate diagnostic aids have illuminated the field of diagnosis and enabled us to recognize diseased conditions with a certainty and precision hitherto unknown to the most skilled diagnostician.

The microscope has rendered most valuable service to medicine as an art as well as a science. In dermatology it has cleared up a whole class of diseases heretofore shrouded in mystery; in the recognition of many internal affections involved in apparently hopeless involution, it is simply invaluable as a diagnostic aid. In that division known as the science of medicine we believe we can say with pride and confidence that the magnificent advance is permanent, and not to be swept away by subtle theories or fanciful chimeras. In the art of medicine I apprehend that we cannot boast of such stable and magnificent advance. It is very true that our instruments of precision have become far more numerous; we have insensibly come to regard the information thus furnished as of primary importance; until the information derived from a careful collection of rational symptoms, from a cautious consideration of the general condition, has been awarded a subordinate position. In fact, I think we attach an exaggerated importance to one series of facts and place a subordinate estimate on the value of others; my observation is that at present physical signs predominate in the mind of the practitioner over the current rational symptoms to the detriment of the patient, and it may be to the discredit of the profession.

The general public cannot be expected to estimate us by any other measure than that of our usefulness. It is well for a patient to feel that his medical man is a gentleman and a scholar; that he is carefully trained in physical examination, and capable of constructing a skillful diagnosis; who has spent much of his time at the post-graduate or polyclinic, and perhaps added the observation of foreign schools to his home-acquired attainments; but, gentlemen, the essential, thing, after all, is confidence in his power to aid him when stricken and prostrated by disease or accident. Yes, the latter is our actual business and occupation in life; and it is here that success is most to be desired. Let us briefly review some of our actual work that will bear successfully the test of severest criticism. You will bear with me for selecting matter for illustration which may seem commonplace because of its long familiarity; it is here, however, that most brilliant results have been obtained; we perform the longest and most excruciating operations without the patient feeling one pang of suffering; we give relief by hypodemic injections of morphia speedily, efficiently, and with less of those undesirable after-effects, than we could before this invention, to say nothing of its value otherwise; we enable an injured heart to develope compensatory growth, and so, in many cases, preserve for years valuable lives, which only a few years ago must have soon been lost to us. By improved methods in facilitating nutrition we now rear myriads of children who but a generation ago would have swelled enormously the death-rate of those who die under four years of age. By a carefully selected diet we prolong for years the existence of the diabetic patient. The widespread use of antiseptics and disinfectants has worked a much needed reform in the relation to the arrest of the spread of disease, and in rendering our refuse less harmful. Indeed, there is much to render the progress made in the last forty years memorable in the annals of medicine as an art, as well as a science.

On the minds of some, both in the profession and out of it, there seems to be an established fear that there is something dangerous and unsafe in too much understanding of the nature of things, especially the nature of disease. To such it seems much better and safer to rest contented; that it is the best thing to do certain things under certain circumstances, without being too inquisitive or curi-

ous as to the how and why; in fact, they rather avoid being able to give a reason for the faith that is in them.

Those who search into the nature of things they stigmatize as impractical. If research has yielded positive information, and a law has been established, they call its elucidator a theorist. A theory, no matter how well founded, has to them something dangerous about it, and indicates unsoundness in its enunciator. Others, however, are ever anxious not only to determine the *causa causans* of all diseases, and even accidental troubles, but also the contributory causes, laboring under the belief that, if such knowledge be obtained, proper treatment will of necessity be the logical sequence. Many people, speaking of politics as the cause of breaking down, confound cause and effect, as also naming religion as a cause of disease, when, as a matter of fact, it is not the cause that constitutes the disease; the malady is constituted by the perversion that results from the cause. One may be exposed to cold and damp which may cause bronchitis, yet in this instance we would not be expected to treat the cause, but the effect; and a fall may cause a fracture of a leg or an arm, in which case the surgeon would treat the fracture and not the fall; causes produce troubles in organs or in functions, but the trouble alone constitutes the malady. These principles, I hold, are general and applicable to all pathology. Such leanings, gentlemen, have done much to retard the progress of medicine, and in many instances have decidedly crippled its usefulness.

The carefully acquired knowledge of one practitioner, however useful to himself and his patients, gives little or no addition to the general stock of information, because it remains individual knowledge derived from experience, which dies with its possessor because he cannot formulate it—cannot so arrange it as to bring it in the sphere of the cognizance of others. He can treat one complex case admirably from his previous experience of like cases, but he cannot enable another to treat such or similar cases. The knowledge exists, but not in a communicable form. If such experience could only be rendered available to others, a great step would be secured. Much of the advance of knowledge lies in the capacity of one generation to benefit by the experience of its predecessor, in the power to appropriate the information gathered by those who have gone before us, knowledge which we in our time should have

elaborated to those who shall come after us. Medicine is no exception to this rule—a man should not only learn for himself, but he should gather and garner for his successors. My remarks, as I have said before, are intended principally for the younger members of the profession. They especially have been pursuing a scientific education without anything like a corresponding acquaintance with actual practice, and pass into the ranks of the profession, and are brought face to face with the care and responsibility of grave and complex cases, without that aid and supervision from teachers and seniors to which they have hitherto been accustomed. It is a serious matter, both for the patient and doctor, to be thus abruptly introduced into the practice of medicine, with all its responsibilities, difficulties and anxieties. After having prosecuted successfully your collegiate course and received the degree of Doctor of Medicine, and then passed the fiery ordeal of the State Examining Board and secured its approbation, then you find that practice differs essentially from the examination-table. An examiner may temper the wind to the shorn lamb, and remember that a license or diploma only guarantees the possession of a certain minimum of knowledge, while in practice the most complicated cases are presented. Further, too, there is this difference: in the hospital the patient is simply a case of typhoid fever or some other disease; while in actual practice the patient is to a certain extent a patron, and the management of the case may exercise a distinct and powerful influence over the professional reputation and prospects of his medical attendant. Such a consideration alone is often sufficient to produce a certain disturbance of the intellectual equilibrium, and to interfere with that serenity so desirable for calm investigation and decision; induce, in fact, perturbation of a nature militating against perfect self-possession. So it is apparent that a patient is not merely a subject of interest as the victim of some morbid process, nor even as furnishing an opportunity for individual advancement merely, but he is an elaborate and interesting organism possessing certain definite qualities. In fact, gentlemen, he is a man. He is a being who possesses the attributes of humanity collectively, together with some variations which form individual peculiarities, and as such he should command the highest consideration, humane and scientific, from his medical advisor. However the medical man of the present day entering upon the grave dutie

and responsibilities of his profession, can justly claim a higher and a better qualification for the work before him than those who have preceded him. The advanced state of medical science, the improved methods of teaching, and the high standard of attainment necessary before being admitted to practice, give him an advantage for usefulness and high distinction hitherto unknown to the medical profession of the State. While other States have followed in the wake of North Carolina in establishing a higher grade of qualification before admission to the right, honor and responsibility pertaining to the practice of our noble art, we can say with pride that we are still in the lead with only one other, our sister and neighbor Virginia, close by our side. While we have so much for congratulation because of the elevated and scientific qualifications brought about by the untiring vigilance of the cultured and enlightened membership of this Society; what shall we say of the observance of ethical properties by the profession at large? This is a subject worthy of most serious consideration. There are many members of the profession, I am grieved to say, who fail to connect themselves with any medical society, nor will they enter into any mutual agreement of a professional character, lest they be constrained to observe those properties incident to honorable professional intercourse. These people seem to be possessed of a mental astigmatism and a moral strabismus, and it is to their professional idiosyncrasies and obliquities that I propose briefly to direct your attention. Probably there is no truer axiom in our language than "self-preservation is the first law of nature." Probably there has never been a nation whose civilization advanced to the construction of even a rude form of philosophic thought among its people, but has had current in its society an adage embodying, under some form, the same idea. One of the most powerful and beautiful arguments of antiquity endeavoring to prove the existence of a supreme intelligence in the creation of man, which has come down to us, is in one of those Socratic dialogues in which the different members of the body are considered with reference to their respective functions, each being shown to be so admirably adapted to the preservation of the integrity of the entire being. This primal law is so plainly delineated on the face of nature that it would be wonderful had it not been so commonly seen. But while we all admit this prime fact, the whole world does

not so clearly see its corallaries There are a thousand streams of human action, meandering through the shadowy coverts of the social life of the world, which, when traced up to their fountain, are seen to spring from this principle The great struggle for life is not that of the present living world alone, but in the ages of the past, as revealed to us through geological discoveries, traces of a universal war for existence are as plainly marked as in the living world of to-day. This instinct in man as the highest reasoning animal, exhibits itself under a somewhat different phase to the form of it developed in the brutes; for, after exhausting all natural aids, the principle of preservation causes him to appeal to the supernatural for assistance. That carter of classical fable, who, when his horse failed him, appealed to Hercules for help, is but a type of the actual man of the world of all ages, past and present. To this principle we owe the superstition of our nature, a superstition which, at one time or another, has infused itself into all three of the learned professions, and more particularly into our own, in which to-day perhaps a close scrutiny would show a few lingering traces. Until a few centuries ago the "Black Arts" were intimately interwoven into the fabric of medical practice so that it would have been perfectly in accordance with the spirit of truth to have paraphrased the inscription common over the door-ways of the Pythagorean Schools of Philosophy in ancient Greece, which read: "Let no one ignorant of Geometry enter here," and have inscribed over the arch-way opening into the temple of medicine: Let no one ignorant of Astrology enter here.

The doctor of the period commenced his prescription with an invocation to Jupiter, and the "split-foot ℞" with which we of to-day commence ours is but an astronomical sign of that planet somewhat distorted in its journey down to us through ages, as anyone can ascertain for himself who will take the trouble of consulting a modern quack almanac for the original sign. Then the apothecary gathered his simples according to rule, waning and full-ing moon; then the physician consulted the twelve signs of the Zodiac, and prescribed and prognosticated as Taurus, Gemini or Cancer was in the ascendant; it was then, after having failed to cure by the use of such disgusting farragoes as would require some ingenuity in a physician of the present day to conceive, that the doctor would resort to prayers, charms and verses. If any of you

will consult the "Rosa Anglica of John of Galdesden," an authority of repute in the fourteenth century, you will find him full of these charming verses. But if we of modern times, living in an age a characteristic of which is that it is essentially material, can congratulate ourselves that necromancy is no longer a part of regular medicine, that the doctor of to-day is not expected to be a magician, that the familiarity with the "Black Arts" is not an integral part of the knowledge of scientific medicine, yet we in humility contemplate the fact that we have still to-day existing in our profession as "Black Arts" as any of a past age. It is true that they are not considered to belong to medicine proper; it is true that their practice is not considered characteristic of the true representation of modern medical science, and it is also true that the practitioners of said arts are held in contempt and loathing by all true disciples of the heaven-born calling; but it is nevertheless as true that at this day and hour there are not a few who manage to have themselves classed with the true disciples, who in secret league with the spirits of darkness cultivate the modern "Black Arts" under cover with the greatest assiduity and skill. And, gentlemen, it is true that with such members of this Society whom I now address are in daily intercourse and are compelled to meet as equals and honorable rivals nominally certain devotees whose astute skill, whose dexterous practice and successful manipulations in the line indicated render them worthy of high position in this dark department of medicine. The over crowded state of the profession, the want of moral training to resist the temptations which beset all of us in our professional rivalry, in our efforts at self-preservation, in our struggle for professional existence in fulfillment of the "first law of nature," is a predominant cause favoring a luxuriant crop of tares. In brief, the spirit of materialism which seems to rule the age has destroyed reliance on divinations, incantations and charms, but the same gross spirit has inspired a reliance on certain ingenious devices for gaining notoriety, and certain modes of acquiring the patronage of the world, which, while of an entirely different character, are infinitely more repulsive. Dr. John D. Jackson, of Kentucky, some twenty or more years ago, published a monograph reflecting severely on the then violators of the code of ethics. This monograph contains a letter ostensibly addressed by Dr. Solomon Michiavelli Sharp to Dr. John Charlatan Green, his

nephew. I will read for your edification some portions of this amusing, but bitter and painfully truthful, description of what he considered to be the most reliable means of obtaining practice:

"*My Dear John:*—Your epistle of recent date has been lying before me until now unanswered. You tell that to the time writing you have been unfortunate in the profession which you have chosen; the world, you say, does not seem to recognize your merits, and that you are neglected, while you see around you men whom you deem far your inferiors not only patronized, but in some instances taken up and much ado made over them; about which you seem much discouraged, and ask for advice as to the means to pursue by which most certainly to secure your business, appealing to me as a successful doctor, retired after forty years practice, to give you the benefit of my experienced observations. Now, my dear John, I must say in candor your failure is attributable to the defects in your professional ability, though as my sister's son and a chip of the family block, I do not doubt that time is all that is necessary to see you, of your own innate instinctive development, after awhile "flourish like a green bay," if not like a "cedar of Lebanon." I could predict this with certainty were it not that the blood of the Sharps has been crossed by the Greenes, which may hinder the development of your sharpness, yet I do not think it will prevent the final, though it may be a little slow, maturation of the peculiar characteristics of the maternal side of your house. I have never yet known a true Sharp fail from lack of shrewdness or from neglecting to make the most of an opportunity, or to be hindered by modesty from boldly pushing his way on every occasion offering. The Greenes, I know, have always been more slow to appreciate their own merits, and I suspect you inherit something of their nature, but I have little doubt but that, after awhile, the opposite traits which you by right inherit will finally assert themselves. As I have before intimated, I attribute your failure to a want of professional ability, owing to the deficiency of your education."

Now, on this point I hold some views which are entirely my own, and they are these: The Shorter Catechism of our Church declares that "the chief end of man is to glorify God." If I were to make a medical catechism I would write first that the chief end of the doctor is to get practice. Machiavelli declares to his nephew what seems to be the guiding principle of a host of physicians, "that

the chief end of the doctor is to get practice;" and he also says the chief way to accomplish this is by "honeyfuglin" the public. Machiavelli thus advises, and his advice is good, for many of you, I apprehend, see daily what its adoption accomplishes: "Push into practice at all hazards." "Recollect *audaces fortuna juvat.*" "Study will keep you back in practice; skim the surface; be qualified with the formula prescribed; form is the chance, whether in law or physic; this is the business, the Alpha and Omega." When one complains of feeling unwell in your presence, be quick to prescribe, without charge, for it will bring its return." "Luck's all." "You are paid, go which way you will." "Make all the noise and bustle you can to make the town ring of you, that everyone may know there is such a physician; it signifies but little how this be done, so it is done." "Frequently put yourself in public print, and if you have an important patient under treatment, make daily reports through the press." "Stand on the streets and tell about your difficult cases, real or imaginary; this is very effectual." "Bend or truckle to the whims of your patient, and fawn upon and sooth man, woman and child, for this is a winning card." "Be, if possible, introduced into a hospital, or, if this cannot be accomplished, visit some noted medical centre, and on your return proclaim to all with whom you meet the wonderful knowledge you have obtained, and your business is done for, be your success what it will." "If your wife should mind business in her way, it will increase yours." "Set up an equipage and buy books, one or two French and German would be well; be cautious about who can read them, lest you expose yourself." "Fashionable dress and gesture and manner of feeling the pulse are half the business. "Write a book of some sort on physic or religion; write so that no man can make anything of it." "I especially advise that you get acquainted and to cheerfully keep company with all old women, midwives, nurses and apothecaries, as you must look to business; the old ladies are the most subject to ailings, and will acquaint you with the same; consequently you are to make the most of it; and never neglect or make light of the least complaint; thus you will gain the reputation of being both careful and skillful; otherwise your care and skill may be suspected as well as your affections." "Ride or drive a peculiar horse, a calico horse or piebald mare, or a buggy with an excessive deal of red or green paint upon it." "Cultivate style

and manner; drive over children and have your name in the papers, or, if desperate, lose a dog and then advertise your name in large capitals." When you go to church be called out frequently, come in late, leave before the services are concluded, or stand in the door-way, shake hands with all, and bow to as many as possible—it is very profitable." "Bob your head to every one you meet on the streets, shake hands, if possible, and hold the hand you shake a long time—it pays well." "If anyone ceases to employ you, go to him for an explanation, and let him know that your feelings are hurt." "It is time to stop; I have given the outline, sketched the field, and it remains for you to fill in the details; the list cannot be given entire; it is very valuable." "These devices invariably bring practice and their adoption costs little—only a forfeiture of character and respect!"

Dr. Jackson has omitted a few hints that are very valuable, viz: to drive persistently about the streets, especially on Sunday, and when the streets are crowded; call at private houses, ring the bell, and find after you enter you have mistaken the house; leave your slate at several drug stores, and employ some one to write calls upon them; subscribe to all charities, whether you pay anything or not; give small presents to all the children in the community, and at Christmas time give books and other presents largely; if a new preacher comes to town be quick to call on him and offer your services, and especially declare your cheerfulness to do the charity practice of his congregation—this pays well; if you are a member of the Church, see to it that the "church racket" is played for all it is worth; never let an opportunity pass to magnify your services; gravely inform your patients that it was lucky they sent for you just when they did, for it was by your timely arrival and puissant intervention that a mighty fever was prevented, "that the bellyache would soon have run into a typhlo-enteritis with intussusception, or the child's stumped toe would soon have become the worst kind of a case of sphacelated mortification"; lose no opportunity for displaying your instruments; if you have a finger or a toe to amputate, take with you your amputating pocket and gynecological cases, and a gallon of antiseptic fluid of some sort, and a large roll of dressing material—be a long time selecting the necessary instruments; you will thus acquire the reputation of being extremely cautious, besides being thoroughly equipped. Another art of value

in certain cases, is to substitute a grave affection for a simple one in your diagnosis; call a sore-throat diphtheria, an ephemeral fever typhoidal, and so on to the end of the chapter, and you will acquire the reputation of being a good typhoid fever doctor, or great on diphtheria; speak confidentially to all with whom you meet of the grave responsibilities attending your many cases, obstetrical, gynecological or otherwise, and especially emphasize the precautions taken to prevent blood-poisoning; sigh heavily from over-work; congratulate yourself upon rescuing patients from the very jaws of death, whom doctors A. B. C. and D. had given over as beyond recovery; make a display of as much high-sounding technical phraseology as possible; be familiar with neurotic technology and the germ theory; learnedly discourse on *le petit mal intellectuel*, the movements *en manege* and the prodromal pre-epileptic syncopic vertigenous paroxysms; emphasize the importance of micro-organisms, autogenetic and heterogenetic, and bacteriological cultures, pathogenic and saprophytic, etc., etc.—it will tell, for the less the public understand it the more will they give you credit for wisdom and learning:

"*Comendant quod non intelligunt.*"

"For the dull world must honors pay to those
Who on their understanding most impose."

A patient may unjustly become dissatisfied with his doctor, and imagine he has been neglected. Should you be called to such an one, that is not seriously ill, having been discharged by his doctor because it was both proper and safe to leave the case to nature, you will manifest much surprise, not only at the neglect complained of, but as to the treatment also; become anxious for his safety, be instant in your attentions, puke, purge, sweat, blister and scarify, and thus your impressions will surely be profound, and though the poor devil slowly emerges from bed in spite of your nefarious treatment, yet you are thereafter pretty sure to have a big name in the family, and the shadow of your competitor just as sure never again to darken your pathway to that house.

The electric battery, Cammann's stethoscope, the clinical thermometer and hyperdermic syringe have been made to play a conspicuous part in this miserable business. The over-credulous have been made to believe that, with the stethoscope and thermometer,

the doctor was not only competent to elucidate all internal troubles, but to determine what they ate the day previously for dinner. I recall an instance in which a frightened and struggling child was forcibly held and brandy subcutaneously injected for a slight cero-sanguineous oozing from an insignificant abrasion of the eye-lid. The whining impostor gravely informed the sympathizing parents that an artery had been cut and that the child was in imminent peril and rapidly sinking. This brazen and brutal fraud not only went unchallenged, but gave enthusiastic satisfaction.

If you reside in the country, join the Alliance and stand aloof from all medical societies and associations, speak of them as rings and cliques of oppression and extortion, with which you have no sympathy or fellowship. Let your motto be, "get practice, honestly if you can, but anyhow get practice." Finally, when you have obtained a footing in the community, act upon the principle that your patrons are your personal property, and never let an opportunity pass to put them under obligations to you; should any of them be taken suddenly ill, or an accident befall them, and another physician is called and relief has been promptly obtained, be sure to visit them and express your regrets that you were not notified; by no means endorse the treatment, although it was eminently proper; speak of it as being a very hazardous procedure, and with emphasis assert that it was laid down in the books as one of the "dont's in medicine," and that they had narrowly escaped a serious calamity.

The following, from a newspaper, explains itself :

"Doctor ——— has returned from Philadelphia, where for the past two months he has been taking a post-graduate course in medicine at the University of Pennsylvania, from which institution he was graduated twenty-seven years ago. While in Philadelphia the Doctor stood successfully several competitive examinations, and also attended daily the University, Blockley and Pennsylvania Hospitals, where upwards of 2,000 patients received treatment and made a special study of various forms of disease most commonly met with in this portion of the country, and their special treatment as practiced by some of the most eminent physicians and surgeons Many of the most important diseases incident to this latitude he has thoroughly familiarized himself with, and takes pleasure in

offering his professional services to the public, feeling that he is better prepared for the successful practice of medicine."

Another card says:

"Doctor ———— offers his professional services to the citizens of R——— and surrounding country. Many years of experience and familiar acquaintance with the science and practice of medicine enables him to give the highest satisfaction. Old patrons will find him still faithful, and new ones will receive every attention. Satisfaction guaranteed as to charges"

I have heard it said of doctors that they had become so brazenly desperate as to besmirch their professional escutcheon by asking for practice out-right, and at the same time under-bid their more worthy and more honorable competitors.

One of the most refined and successful methods for obtaining notoriety is to be found in medical literature. It is a notable and praiseworthy fact that medical literature is pregnant with valuable contributions by accurate observers and truthful reporters. However, we cannot overlook the fact that there are a few whose professional morale is overshadowed by that most direful idiosyncrasy, cacoethes scribendi, who write at all times and upon all subjects with an eye single to the advancement of self-glorification; and many head their articles with such an appalling array of titles that one becomes fatigued, if not alarmed, in reading the marvelous appellations of honor before he gets to the subject-matter. Much could be said of the professional obliquities practiced by some of the leading surgeons and physicians who have established private hospitals or retreats for the sick. Many of these gentlemen have taken deservedly high rank, not only for their medical proficiency and surgical skill, but also for their rigid observance of honorable professional deportment; while others seem to aspire to an equally high distinction for the violation of ethical proprieties in their dealings with their less favored but more honorable brethren who entrust patients with them because of superior advantages offered for some special treatment, surgical or otherwise.

I could continue the list *ad infinitum*, but it is time to stop, lest I worry your patience. A man who, by a dexterous application of the arts and means referred to cannot succeed in getting practice and retain his place as an honorable man within the fold of the regular profession. For one to pursue such dishonorable

methods to secure patronage must of necessity in every respect become despicable, professionally dishonest, personally deceitful disreputable and treacherous

Gentlemen, perhaps you may think me rather hypercritical, and maybe withal something of a cynic, and therefore probably drew the scene with rather too heavy a hand, and yet we all can recognize some lines which, alas! are too commonly visible in any but well-organized communities. Though in localities in which no organization of the medical body exists, the large number of medical men may act in the same true spirit of the profession, and admitting that if there was no written code, that yet the true physician would carry out its spirit, just as the true gentleman would always be found acting in accordance with the spirit of the civil law, if even it was not the law of the land, yet, just as the necessities of society at large demand organic laws, so on the same principle is organization and a written code demanded by every profession, with the clergy, as with the military, it is indeed the fundamental rule of existence. The truth is, that, owing to human depravity, we are naturally a little mean, and are instinctively predisposed to be a little jealous each of the other. This is, when we analyze it, but an extension of the natural law of self-preservation beyond proper limits. Now, I think I may truthfully say that there is no more effectual way of suppressing this evil phase of our nature, in its multifarious disgusting forms, as we frequently see it cropping out in the folds of our profession, than by the accepted public acknowledgment on the part of the better portion of our profession of a written code. Let the public at large once be fully cognizant of our standard, and half the incentive to self-abasement will have been taken away; for they, the audience before whom we play our respective parts, can at once measure each of us by our own rules, and the most respectable part of society learns soon to look with disgust upon the tricks of the tradesman in the professional man Sir Benjamin Brodie once said that "Medicine is a most noble profession, but a miserable trade!" Fully imbue society with this idea, and any over-pushing, grasping desire for the world's patronage, at the expense of honorable independence and the nobler feelings, or the sacrifice of the rights of others, and the violator will by the public as by ourselves be viewed with derisive contempt, and then, and not till then, will this hydra-

headed modern Octopus of charlatanism, which stalks abroad at meridian sun, clothed in the habiliments of a divinely inspired vocation, while within is a charnel-house of professional depravity, from which emits an insufferable stench, equalled only by the foul and loathsome effluvium that emanates from that filthiest of all places on the habitable globe, 'The Black Hole of Calcutta,' not only be shorn of its tentacles, but be buried beyond the hope of resurrection, so that neither man nor angel will ever roll the stone from its tomb again. The foundation of all pure ethical principles is in the golden rule, 'Do unto others as you would have them do unto you,' and its spirit has breathed into all the established rules for professional intercourse with which we are acquainted. It permeates the noble principles of that prince of surgeons of five hundred years ago, Guy, of Chauliac, who summed up the character of the true surgeon by saying that 'He should be courteous and condescending, bold in security, cautious in time of danger, avoiding impracticabilities, compassionate to the infirm, benevolent to his associates, circumspect in prognostication, chaste, sober, pious and merciful, not greedy of gain, no extortioner, but looking for his fee in moderation, according to the extent of his services, the ability of his patient, the result of his treatment and a proper sense of his own dignity."

And now, in our own code of ethics written by the ever-to-be-honored Percival, and adopted by the American Medical Association and by this Society, we have as perfect a system of rules for our government, founded on as pure a sytem of morality as the most rigid moralist could ever wish for, a code which, from its essential nature, must always purify and ennoble those living in accordance with its precepts. How men of our profession, of good sense and good intentions, can ever live and practice their vocation in the same community without being on good terms with each other, is not easily explicable, for there is certainly no other profession, the inherent nature of the practice of which so inevitably and so repeatedly demands coöperation and mutual kindly services. As has been said by one of eminence in our profession · "If society does treat the medical man harshly and unkindly, is it any worse than medical men treat each other? Many of the worst things ever said of a physician originally came from another physician's tongue." It would always be well for that man who should be

ready to rejoice at the mishaps of his neighbor, and dishonorably profit by his misfortunes, to reflect that, being human, we are all thereby fallible, and that the day may not be far distant when he himself may stand in sore need of and most wistfully crave all human sympathy; and furthermore, that he who does injustice to one of his peers, directly wounds his profession, and reflectively himself, but as the organization of individvals into communities is greatly auxiliary to individual effort, whether it be for the furtherance of material interests or the practice of the moral virtues, so is our profession benefited by the formation of societies, certainly one of the most powerful levers impelling the advance of medical science during the past thirty years, has been the establishment of the numerous medical societies which during that time have grown up in Europe and this country. Before these every alleged discovery with any pretentions to importance is brought up, and undergoes the ordeal of scientific discussion by the ablest minds of our profession. Before these a thousand pretentious theories which would have lived some time in the world, have promptly received their quietus; and it has been, on the other hand, through its ventilation here, that many an opinion or method which would otherwise have been slow of development, has at once obtained its proper standing with the profession. The great medical societies of the world are the winnowing machines of the profession, serving the most useful purpose of sifting the good from the bad, the true from the false. Let the medical societies of Paris, Berlin, New York and Vienna be blotted out to-day, and the loss would soon be sensibly felt by the profession throughout the world. Is there a member of this Society present to-day but will agree with me in affirming that, as an individual practitioner, he has been instructed and elevated morally as well as mentally from the united association. And furthermore, I believe I speak the truth when I say that, as a result of the Society's organization and operations, our profession, and as a consequence we, as individual practitioners, have been elevated an hundred per cent. in the eyes of the respective communities in whose midst we belong. What, gentlemen, are our prospects for the future? Has our Society reached its acmé of efficiency, and is it reasonable to expect the fruits of the years before us to excel the products of those of the past, while acknowleding that there remains a wide margin for improvement.

It has been justly said, "A very large class enter the learned professions with no higher motives than such as characterize commercial enterprises, pursuing them as a business, and more anxious to erect monuments like that of Nebuchadnezzar in the plain of Dura, than such as fill the niches of fame.

> 'Make sordid wealth the object and sole
> End of their industrious aims.'"

But, gentlemen, though we know that, while we have our own, with perhaps many other hungry mouths to fill, we must ever instinctively feel that to derive an income from our professional labors must be one of our first objects, an object the worthiness of which we have sanctioned by the inspired authority which tells us, "He who provideth not for his household is worse than an infidel;" yet we should not forget that we have it from the same authority that "Man shall not live by bread alone."

Dr. George B. Wood once declared that "He who enters the medical profession with a mercenary spirit will almost necessarily come short of its highest requirements. Aiming at the appearance rather than the reality of skill, he will think more of the impression he may make on others than of a proper understanding of the disease! The immortal Sydenham used to say, "I have thought it a greater happiness to discover a certain method of curing the slightest disease than to accumulate the largest fortune." The illustrious Fothergill once said, "My only wish was to do what little business might fall to my share as well as possible, and to banish all thoughts of practicing physic as a money-getting trade, with the same solicitude as I would the suggestions of vice or intemperance." Lord Bacon has said that "Every man is a debtor to his profession from the which, as men do of course seek to receive countenance and profit, so ought to endeavor themselves, by way of amends, to be a help and ornament thereunto." Our code makes the same acknowledgment in the paragraph which declares that "Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to the extent of his best abilities to maintain its dignity and honor, to exalt its standing and to extend the bounds of its usefulness."

The plain truth is that those who intrust themselves to our care

have a right to require of us a knowledge of our profession fully up to the advances of the day, and for the lack of the possession of such knowledge, involving human life and health as it does, we stand responsible before God and in the presence of the law.

In conclusion, gentlemen, we ought always remember that "of unity cometh strength," and that, as whatever of individual honors come to us are reflected upon our Society, so as individual members composing the Society, whatever of honors or glory cometh to her, is reflected back upon us. And now may I say, in the name of every member here present to-day, that of whatever of joy or sorrow the future may bring to us, nerved to a triple resolve by the recollections of the past, may the future always find us true and worthy worshippers at the altar of science, ever lending the best powers of head, heart and hand toward adorning and keeping clean the niche in the great temple of medicine which has fallen to the lot of the North Carolina Medical Society.

Since our last meeting the icy hand of death has invaded our ranks and plucked some of our loveliest blossoms. Drs. Edmond F. Ashe, Abraham Van Wick Budd, R. L. Beall and others are no more. To us they were true and tried men, faithful to every duty; wore the honors of their profession with uprightness of character, gentlemanly deportment and honorable proficiency. Beloved in life and lamented in death; they have passed to the mysteries beyond, and are resting peacefully upon their laurels won and worthily worn during life. While we drop the tear of sympathy and sorrow for our loss, let us resolve to imitate the example of their noble and unselfish lives, follow their precepts, embalm their virtues, and indelibly stamp them upon our memories and characters.

On motion, the address of the President was referred to the Committee on Publication.

*Committee on Finance.*

The President appointed as the Committee on Finance, Drs. M. P. Perry, D. T. Tayloe and S. D. Booth.

*Committee on Credentials.*

The following were announced as the Committee on Credentials: Drs. Thos. S. Burbank, Albert Anderson, W. C. Galloway and I. G. Riddick.

*Resignation of the Secretary.*

The Secretary then read the resignation of Dr. J. M. Hays as Secretary.

On motion, the Society accepted the resignation of Dr. Hays, and extended to him their thanks for the efficient manner in which he had attended to the duties of his office.

On motion, the morning session then adjourned.

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First Day—Afternoon Session.

The Society was called to order by the President at 3 o'clock.

The Committee on Credentials made a partial report, which was adopted. (The reports of this Committee will be given in full in the proceedings of the last day.)

*Delegates from Randolph County Medical Society not Accepted.*

The credentials of the delegates from the Medical Society of Randolph County were presented, but it being ascertained that the said Society had failed to comply with the Constitution of the State Society, the delegates were not admitted as such.

Dr. J. W. Long, one of the delegates, explained that in his county the profession took but little interest in Medical Society matters, and that they had effected the organization of the County Society for the purpose of stimulating their interest in this kind of work. Their Society had been organized on the line of the State Society, but he confessed to ignorance of the Constitution of the State Society in regard to county societies.

*Resolution to Amend the Constitution—Baker.*

Dr. J. M. Baker offered a resolution to amend the Constitution in regard to the appointment of the chairmen of sections; that the Secretary be empowered to appoint essayists within thirty days after the adjournment of the Society, to prepare papers on subjects named by the Secretary, and that these essayists report to him at least sixty days prior to the meeting at which their essays are to be presented to be used by him in preparing a programme.

In offering this resolution Dr. Baker said that this plan had been

adopted by nearly every society in the United States. In answer to an inquiry, he explained that this plan gives the Secretary the arrangement of the programme for the next meeting.

The question arose as to whether action should not be deferred until the next meeting of the Society, on the ground that the resolution involved a change in the Constitution of the Society.

Some discussion was entered into which resulted in the ruling of the President that it did involve a change in the Constitution, and should lay over to the next session.

Dr. C. M. Poole offered an amendment to the Constitution concerning the dropping of names of members for the non-payment of dues. Attention being called to the fact that a committee had been appointed at the last meeting of the Society to codify and revise the entire Constitution and suggest a substitute for the whole, and that all of the matters had been considered by that committee in their report, he withdrew his resolution.

*Vacancies Filled on the Board of Censors.*

The President appointed to fill vacancies on the Board of Censors, Drs. H. T. Bahnson and W. J. Jones.

*Communication from the North Carolina Pharmaceutical Association.*

The Secretary read the following communication from the North Carolina Pharmaceutical Association:

NORTH. CAROLINA PHARMACEUTICAL ASSOCIATION,
OXFORD, N. C., May 17, 1892.

*The Medical Society of North Carolina:*

GENTLEMEN:—At the last annual meeting of our Association, held at Morehead City, July 8–9, upon solicitation of the Committee which you sent there, and that the fraternal feelings which had been established between the two professions might be continued, the following delegates were appointed to this meeting of your Society: F. W. Hancock, of Oxford; W. H. Green, of Wilmington; John H. Hardin, of Wilmington. It was further requested by your Committee and endorsed by your Association, that such delegations may be sent, annually, from each of the two organizations to the meeting of the other.

Yours, very truly, F. W. HANCOCK, *Secretary.*

Dr. S. D. Booth thought it would be well to hear the report of the Committee appointed at the last meeting of the Society to confer with the Pharmaceutical Association before acting on the communication. He then presented the following

*Report of the Committee Appointed to Confer with the North Carolina Pharmaceutical Association.*

He said that on his way to the Druggist's Convention he found much objection among the druggists to consider the matter at all. They seemed to think that we were encroaching on their rights; but at the Convention he found the druggists very pleasant and the Committe were treated very courteously, while the druggists seemed inclined tc do everything that was right in the matter. He had suggested to them that the two bodies send representatives each to the other, and that this change of ideas would accomplish good.

The report of the Committee was received.

On motion, the communication from the druggists was received and the delegates were invited to seats in the sessions of the Society.

Dr. K. P. Battle read a paper on Hypertrophy of the Third or Pharyngeal Tonsil—Adenoid Vegetation in the Naso-Pharynx in Children. [See Appendix.]

On motion, Dr. Battle's paper was referred to the Committee on Publication.

Dr. S. S Satchwell read a paper entitled Our Pine Forests as a Factor of Health. [See Appendix.]

The paper was referred to the Committee on Publication.

*Report of Committee on Credentials.*

The Committee on Credentials made a partial report, which was adopted.

Dr. Joseph Graham announced that he would present a specimen and read a report of a new operation for treating the pedicle in abdominal hysterectomy.

On motion, the Society adjourned until 8 o'clock.

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First Day—Evening Session.

The Society was called to order at 8 : 30 o'clock by the President.

The Chair called for the report of the Chairman of the Section on Surgery, but there was no response.

Dr. W. J Jones read a paper on Rectal Pathology. [See the Appendix ]

Dr. F. W. Brown, the regularly appointed Leader of Debate, being absent, Dr. Thomas Hill opened the debate on the subject chosen by Dr. Brown—*Puerperal Eclampsia.*

He called it "this terrible disease—the most frightful that the physician is called upon to treat." As far as his reading goes, the cause of the trouble seems to be uræmic poisoning with a condition of albuminuria. His idea of the treatment is that it should be prophylactic, and believes that we have a preventive for the disease in chlorate of potash given in 10- or 12-grain doses. He has had experience with it for thirty years, and thinks he has succeeded in warding off an attack, for he has used it in patients whose condition would lead him to expect the disease. The treatment during the seizure should be morphia and chloral. In reply to a question as to how he would treat a case occurring unexpectedly at the fifth or sixth month, he said that he would use opium and chloroform to break up the attack and then push the chlorate of potash. As to the rationale of the treatment by the chlorate of potash his idea was that it oxygenated the blood and freed the urine of albumen.

Dr. Booth thought the best thing to do was to bleed and bleed vigorously in every case unless he thought the bleeding itself would kill the patient. Then deliver by the quickest means in your possession, after which you will get good results from morphia. Give all the morphine she will bear to keep off the convulsions. He has not found that morphine acts well before delivery, why, he does not know.

Dr. Parris recommended the hypodermatic injection of veratrum viride. He cited a case in which headache for a few days was followed by convulsions. Dilatation having just begun, a soft catheter was introduced into the uterus and left in position. Dilatation was completed in a few hours and delivery effected. In about three hours the patient had a most terrific convulsion to which she nearly succumbed. Ten drops of veratrum was given, the pulse being 140. Within an hour the pulse was reduced to 40, whereupon sweating began, and the patient returned to consciousness. In about one hour the pulse began to rise again, reaching 120. Vera-

trum was again administered with the reduction of the pulse to 50, where it remained a long time. The administration of veratrum was continued during the night in smaller doses, and the patient finally recovered, and the success with this patient led him to regard the treatment favorably. This patient had had convulsions in several labors previous to this one.

Dr. Bulluck's experience had been that, while neither bleeding nor chloral had always checked the convulsions veratrum had. If you get the pulse under 55 the woman will not have convulsions, no matter what the physiological conditions are. You can use as much as 25 drops hypodermatically. He has been using it fifteen years and has never seen a case in which it failed.

Dr. Alston has had three cases in the last three months. He used bromide of potassium and chloral mixed together with slight bleeding. He called attention to the fact that we sometimes have convulsions when there is excessive hæmorrhage; in these cases we cannot bleed.

Dr. W. J. Jones thought we should look for the cause of the convulsions. Is it a reflex excitability? Is it a case of toxæmia? He was not satisfied that albumin in the urine was the cause. We are directed to the kidneys as concerned in the production of the convulsions, and then we find albumen in the urine. That they may be due to improper elimination, he cited a case in which the mere introduction of the catheter gave relief. If the convulsions be due to improper elimination, we would not expect bleeding to give relief, but would rather look to restoring the functions of the kidneys, and of aiding their action by that of the skin and the bowel. After all the gateways are open for the elimination of the waste product we might give chlorate of potash. Use chloral and morphia to control the convulsions until you can get the effect of the veratrum.

Dr. Roberts, in his experience, had been weaned from the idea that the lancet was the first and only thing that would do any good. He delivers his patients as quickly as possible, and if he sees any evidence of convulsions he gives a brisk cathartic.

Dr. Pierce thought that bleeding should depend upon whether the patient were in a sthenic or asthenic condition. He called attention to the good effects of the bromide of potash with ergot. They are derivatives from the brain and excitants of the uterus,

bringing on contractions. Also recommended mercury in large doses on account of its derivative action. If the convulsions depend on uræmia, and there is much poison in the blood, you will not have time to eliminate it, and nine cases out of ten will die anyway.

Dr. McNeill, in several hundred cases of obstetrics, has never seen a case of eclampsia. He thinks this is due to his frequent observance of the women whom he was to attend in their confinements. He thinks prophylaxis the most important of all treatment.

Dr. Haigh thought while the members apparently differed in their treatment of the condition under discussion it was all on the same line. He thought that the convulsions were due rather to reflex irritation, and that when the uterus has been relieved there is one great point gained, and the second point is to allay the nervous centers. He thought all the remedies good. He was interested in the use of veratrum, though he had never had occasion to use it. In those forms where the brain is seriously threatened it is without doubt, imperatively called for, and gives the quickest relief of any remedy. He called attention to those hysterical cases in which we see that the patient is in little danger, but in those cases in which the brain is threatened immediately after the first convulsion, there is stertorous breathing, and there will be a lesion of the brain unless there is relief. In these he has never seen a remedy to equal a good free letting of blood. He has had no cases of late years, and attributes the fact to his having adopted the prophylactic rule of the frequent examination of the pregnant women.

Dr. Payne, Jr., thanked Dr. Haigh for expressing what he had found true in his experience. He spoke of the diversified opinions as to the cause, and thought the practical point with us is as to the successful method of treatment. He recommended as a routine treatment to bleed and then use morphine and veratrum hypodermatically, and in the vast majority of cases you will succeed.

Dr. Chambers said that in several autopsies he had witnessed in which the cause of death was puerperal convulsions, there was no distinctive lesion in the kidney which would point to them as the cause of the trouble. He thought we were discussing a number of clinical conditions under the name of puerperal convulsions, and this accounted for the difference of treatment. He divided the

disease into two classes—one gets well under any treatment. On the surface clinically they appear just as horrible as the other class that die regardless of any treatment. We are brought to face the fact that all diseases have a mortality that belongs to them whatever be the treatment.

In one of the autopsies there was a lesion of the kidney, but there was no more reason to say that the woman died of puerperal convulsions than any other patient who died with an acute nephritis. In the second case there was a normal condition of the kidney as far as the naked eye or the microscope could say. In the third case there was a marked congestion of the kidneys and the internal organs generally which could be accounted for by the fact that the convulsions had continued for several hours before death. All these three women presented the clinical condition known as puerperal eclampsia, but there is a question whether any two of them died from the same cause. He cited a fatal case that occurred at the Maternity Hospital in which the patient received all the attention that is given to the patients in that institution. For a month prior to delivery the urine showed no albumen, nor was there any twelve hours after labor. She had a convulsion after labor which lasted eighteen hours, and immediately albumen appeared in the urine. He thought we should treat the patient and not the convulsions. It is impossible for one man to tell another just what he would do under a certain circumstance.

Dr. Herring, after losing eight cases consecutively, had obtained good results from large doses of morphia.

*Report of Committee on Credentials.*

A partial report was received from the Committee on Credentials. On motion, the report was received.

*Committee on Nominations.*

The Chairman announced the following members as the Committee on Nominations: Drs. J. W. McNeill, H. H. Harris, Thos. S. Burbank, W. H. Harrell and E. C. Laird.

The Secretary read an invitation from the Robert Portner Brewery Company for the members to visit their plant and test the quality of their beer. The Company were thanked for their cordial invitation.

On motion, the Society adjourned.

SECOND DAY—Morning Session.

The Society was called to order at 10 o'clock by the President.

Dr. Geo. G. Thomas offered the report of the Committee appointed at the last meeting to revise and codify the Constitution and suggest a substitute for the whole.

On motion the thanks of the Society were extended to the Committee, and they were authorized to have 300 (afterwards increased to 500) copies of the report printed for distribution, and action on the report was made the special order of business for the second afternoon of the next meeting of the Society. The motion was amended, requiring a copy of the report to be mailed to each member of the Society at least sixty days previous to the next meeting.

*Report of Committee on Credentials.*

The Committee on Credentials made a report, which was received.

A telegram was read from Drs. Charles and Francis Duffy, expressing their regret at their inability to attend the meeting.

*Report of Section on Gynecology.*

Dr. M. H. Fletcher presented the report of the Chairman of the Section on Gynecology.

On motion, the report was referred to the Committee on Publication. [See Appendix.]

The President extended the courtesies of the floor to Drs. Michael Greer and D. P. Bachelor.

Dr. Joseph Graham read a paper and presented a specimen on Supra-Pubic Operation for Removal of the Uterus with Sub-Peritoneal Treatment for the Pedicle.

On motion the thanks of the Society were extended to Dr. Graham, and his paper was referred to the Committee on Publication. [See Appendix.]

*Report of Committee on Credentials.*

The Committee on Credentials made a report, which was accepted.

On motion, the order of business was suspended and Dr. W. W. Lane read a paper entitled Hospital Notes, and exhibited two cases:

one for removal of the entire upper extremity with scapula and a portion of the clavicle, and the other for supra-pubic operation for artificial urethra of three years standing.

The members were much interested in the cases, and the thanks of the Society were, on motion, extended to Dr. Lane, and his paper was referred to the Committee on Publication. [See the Appendix ]

*Reports of the Chairmen of Sections on Materia Medica and Medical Jurisprudence.*

The Secretary presented the reports of the Chairmen of the Sections on Materia Medica and Medical Jurisprudence, both of which were referred to the Committee on Publication. [See the Appendix.]

*Report of Board of Censors.*

Dr. W. H. H. Cobb offered the following report from the Board of Censors :

"WILMINGTON, N. C., May 18, 1892.

"We are reliably informed, and know, that Dr. M. E. Robinson, of Goldsboro, N. C., a member of this Society, heretofore in good standing, has advertised, and is now advertising, in the local papers, a nostrum known as Garden's Chloride of Gold Treatment for Drunkenness, etc., and guaranteeing a cure; and whereas, such practice is in direct violation of both the spirit and the letter of the Code of Ethics adopted by this Society for the government of its members, the Board of Censors respectfully advise that the said Dr. M. E. Robinson be suspended from the rights of membership in this Society until such time as he can, after appeal for trial by the Board of Censors, purge himself from the odium of such dishonorable and unprofessional conduct.

"We also suggest that the same action be taken in the case of Dr J. B. Robertson, of Winston, N. C., who has similarly advertised and guaranteed a cure for the same habits, known as Hertginger's treatment."

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CONJOINT SESSION WITH STATE BOARD OF HEALTH.

The hour having arrived for the Conjoint Session of the Society

with the State Board of Health, Dr. H. T. Bahnson, President of the State Board of Health, assumed the Chair and called the Conjoint Session to order.

*Resignation of Dr. J. M. Baker..*

The Secretary read the resignation of Dr. J. M. Baker, which, on motion, was accepted.

A PARTIAL SYNOPSIS OF THE REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH.

*Influenza.*

Since the last report of the Secretary the State has been visited by another epidemic of Influenza. It would be more correct to say that all during the year there were cases reported from some of the counties. For instance, in June, from Macon, Mitchell, New Hanover and Pender; July, Greene, Macon and Orange; disappearing in August, appearing again in September in Mitchell and Orange, the next month in Orange and Davidson. In November it set in again in earnest, being reported from 11 counties; in December it had reached 36 counties, mounting to 41 in January, declining again to 36 counties in February.

There are no statistics to determine the death-rate or the number of persons sick with influenza during the periods named. The reports from our towns do not specify influenza as a cause, as in the scheme so far adopted it seemed only practicable to name such diseases as gave indication of the general state of the public health. Without being able to appeal to statistics to demonstrate the loss to the State by death and disability, we know it has been great in hastening the death of old persons and impairing the health of those of middle age.

After having had three years experience with the disease, and the voluminous statistics of all nations—for none have escaped—the practical question to sanitarians is, *How can its spread be averted?* That it is an infectious disease, has been clearly proven by the experience of the best observers, and in England this belief has been so firmly held that a person in a small town was fined for coming on the streets before he was entirely well of influenza. It must be admitted that, as much information as we have accumu-

lated upon the subject, there seems to be no practicable means of preventing or arresting it. The epidemics in towns have been traced to the arrival of one person from an infected town, but its spread is so rapid and mysterious, and the sickness may be of such an unnoteworthy nature as not to require the attention of a physician, or not to be distinguished from usual non epidemic catarrh.

As malaria formerly entered into nearly all of our diseases on the sea-coast and in the alluvial valleys of the interior all likely to partake of the malarial type, even surgical cases of a serious nature being almost uniformly dominated by this malarial poison, influenza seems to have asserted the same predominance, either communicating its type to all sickness, or attacking the patient at the most vulnerable point, lighting up rheumatism and gout, precipitating the consumptive in his downward course. While it has had no such destructive influence as the shorter ravages of cholera and small-pox, it has caused losses to towns, and especially to insurance companies and societies, in excess of that of any sickness which has visited the world.*

The domesticated animals have suffered but little from the epidemic in our State, even estimating that the uncertain word "distemper," as used by most reporters, may or may not mean influenza, few counties have reported its presence.

### *Consumption.*

This disease still continues to be the most important one that afflicts the human race, because of its fatality and universality. In North Carolina we have nothing like the prevalence of the disease that is found in the States North, East and West of us, which may be accounted for in one way by the sparseness of our population and the mildness of our climate. We are speaking, though, as if we had valuable statistics to prove our death-rate, whereas we have only the records of from 13 to 15 towns with a population of from 80,000 to 100,000 to estimate upon.

*This immense loss of money is less burdensome now than it appeared years ago, because it is now borne by insurance companies, and in the days of the plague, small-pox, by individuals, these great epidemics occurring before capital and brotherhood associations had ventured for profit and for philanthropy to provide for the widow and orphan.

The increased ratio of the death-rate among the negroes is still a striking feature. The causes of this disproportion lie deep in the social conditions of the negro, and the remedy is so far in the future as to seem now allbut hopeless. If contagion be admitted as a potent cause, none are more subjected to it than the negroes huddled in the suburbs of every Southern town in the unwholesome shanties. If syphilis, hereditary and acquired, can lay the foundation for it, the cause is abounding. But the tuberculosis of negroes is more largely abdominal than with the whites, so much so that *tabes mesenterica* was designated negro consumption par excellence by Dr. Cartwright.

The negro has not become so important a social factor as to have become as interesting pathologically as he may be some day, and so all his diseases are not touched upon in the text-books. Even from Baltimore, which is nearly a Southern town, we have a new Practice of Medicine, and the word negro is not so much as mentioned in the index.

In the absence of more elaborate statistics, we are aware that death is playing havoc with the freedmen, and that the massing of them in the town is a potent cause of all their constitutional diseases. In the month of March an insurance solicitor informed the Secretary that his company had paid in Wilmington a policy for every day in one week, and the report of Dr. Potter, Superintendent of Health of New Hanover County, shows that for March, 1892, the deaths from consumption was 4. There is no remedy applicable to this state of things like the return of the negroes to the farms, even if this be applicable. For the moment you discuss the question, the ways and means rise as insuperable obstacles There has been a removal of negroes from the eastern portion of the State, but the agents who solicited them as laborers for other States found that the town negro was too well satisfied with his easy life there to be beguiled into the turpentine forests of Georgia, the sugar plantations of Louisiana, or the cotton fields of Mississippi. The means are not obvious whereby the consummation of the seggregation of these great masses among the farming districts may be accomplished, but it will come in time, or the race is doomed to a large decline by disease, chief among which is consumption.

*Vital Statistics of the Negro.*

In "The Arena" for April, 1892, we have a thoughtful study of the vital statistics among the negroes. The writer was greatly embarrassed in his investigation of the question by the lack of statistics from the States. Since the days of the faithful statistician, DeBow, Superintendent of the seventh census, no census has been so reliable, especially as to the negro, and the records of few Southern cities were kept regularly and systematically.

The wild conjectures about the immense increase of the negro population made by several contributors to statistical and political papers was contrary to our knowledge of the actual condition of the race. Mr. Frederick L. Hoffman, the author of the article in "The Arena" above-mentioned, tabulates the white and colored population of ten Southern States for 1890 from the census, showing the percentage increase among both races in these States. In the State of North Carolina, for instance the increase among the whites for the past decade was 20.98 p. c., while for the negroes it was 6.76 p. c., two-thirds less. In Mississippi and Arkansas alone was the increase of the negroes greater than among the whites, while the total average reads, increase among the whites for the ten States 25.07 p. c., and for the negroes 18.29 p. c. Statistics are not at hand to inform us whether the exportation of negroes from the north tier of Southern States to Mississippi and Arkansas went to swell the ratio of increase.

But consumption among all the classes of people in North Carolina is a leading question, and one that we ought to meet with the aid of the large mass of facts which are being collected, with some increased degree of hope The State sets apart hospitals for the care of the insane, not with positive despair about their future, but with a feeling that a peaceful death is the best solution of their sad estate, is it not worth the while for the State to show her interest in this great class of curable consumptives and open free sanitaria for an experiment on a large scale at the public expense, and so restore men now hopeless to their places as citizens. Private sanitaria in our State are attracting the attention of the people of the Northern and Western States, and are doing good work. Is not the experiment far enough advanced to encourage the State or philanthropists to undertake free sanitaria for these afflicted citizens.

A question has arisen as to the colonization of consumptives, if it is not unadvisable for the salubrious States fitted for the location of sanitaria to object on the ground of the implantation of the scourge by the massing of the consumptive in heretofore exempt localities. We believe this objection would not hold where such precautions and sanitary rules are adhered to as in the sanitaria. It is well known, though, that when a locality gets a reputation for its salubrity for consumptives, hotels and private houses are thronged by these unfortunate invalids, where hygienic discipline is impossible.

The prophylaxis of consumption is already a practical question, and is assuming a rational stage of practice, through the sanitary associations in the United States.

The American Public Health Association at the Charleston meeting in 1890 had its practical prophylaxis up for discussion, and the remarks of those who took part in the debate showed how seriously some of the leading sanitarians in the country were studying the question.

The Conference of State Boards of Health which took place in Washington in May, 1891, reported through their committee some resolutions bearing upon the practice of prophylaxis, as follows:

"GENTLEMEN:—Your committee begs leave to report the following resolutions:

"1. That it is the opinion of this Conference that tuberculosis is a zymotic disease; that its germs are developed within the blood and tissues of man and various animals, and that these germs are capable of an existence external to the body for a number of months, especially in dried sputum, and in places where least exposed to the free action of the atmosphere and sunlight.

"2. That the germs of tuberculosis are conveyed in various ways to persons and animals, the principal media of these being:

(*a*) Dust containing dried sputum.

(*b*) Food, either contaminated with infected particles, or the flesh of tuberculous animals.

(*c*) Milk from phthisical mothers and tuberculous cows.

"3. That unsanitary conditions are the prime factors tending to the development and dissemination of the disease, such as:

(*a*) House and soil dampness.

(*b*) Lack of sunlight and bad ventilation.

(*c*) Bad plumbing and house-drainage.

(*d*) Over-crowding in living rooms, in schools, in workshops, in public institutions, etc.

"4 That the disease is undoubtedly disseminated through the neglect to destroy or disinfect the sputa of the phthisical, distributed as this infectious matter is.

(*a*) On infected linen (dangerous to washer-women), clothing, carpets, etc.

(*b*) On the floors and walls of houses, workshops, hospitals and hotels, especially of health resorts.

"5. That to limit the spread of tuberculosis it is necessary that notification by physicians and householders of its existence be made compulsory, thereby enabling health authorities to examine into the sanitary surroundings of those affected, and to make provision for the adoption of the necessary precautions against infection to the healthy.

"6. That municipal inspection of dressed meat and of dairy cattle be systematically carried out, and that the notification of the health authorities by owners of infected animals be made compulsory.

"7. That municipal and State governments ought to aid in the work of limiting the disease by the establishment of institutions especially designed for the reception and treatment of the phthisical, and so situated that while minimizing the danger to the general community, they may likewise supply means for outdoor work and exercise, suited to the condition of different patients.

"Peter H. Bryce, M.D., *Ch'm.*
"Lucien F. Salomon, M.D.
"Prof. V. C. Vaughan."

They are aiding in the progress of prophylactic practice when we as physicians disseminate such information among their patients and insist on its rigid rules when they are attending consumptives. It will be a long time before we can realize the ideal practice set forth by the resolutions of the "Conference," but we can patiently do our share of it and await the education of the people.

*Relation of Tuberculosis to Animals.*

It is too large a subject to undertake in this report to point out

the possibility of the transmission of the disease through the milk and flesh of bovine animals.

We have a remarkable demonstration of the existence of tuberculosis in a fine herd of cattle, reported in the *Medical News* of Philadelphia, and reproduced in the NORTH CAROLINA MEDICAL JOURNAL for April, 1892.

It must not be presumed that because this fluid was made in Philadelphia by specialists that it is rare, the serious question is how far-spread the disease may be in the cattle in our State. Since we pay no attention to the rudiments of flesh-food inspection, there is little promise that the detection of the disease will be sought after to the apparent detriment of the owners of valuable property. Fortunately, as to the dangers from beef as food, the purification by fire in cooking is our present safeguard. In fact, it is not at all proven that cases can be traced from the consumption of beef. Notwithstanding this it is no longer a subject we may neglect with impunity.

*The History of Small-Pox in North Carolina—The Introduction of Inoculation and Vaccination; the Condition of the Inmates of our Jails and Poor Houses as to Protection by Vaccination.*

The Small-Pox was brought to America by the earlier settlers. It ravaged the Indian tribes fearfully. Lawson* speaks of the Sewee Indians thus: "The small-pox has destroyed many thousands of these natives who, no sooner than they were attacked with the violent fevers and burning which attends that distemper, fling themselves overhead in the water, in the very extremity of the disease, which, shutting up the pores, hinders a kindly evacuation of the pestilential matter and drives it back, by which means death most commonly ensues."

Dr. John Brickell, in his National History of North Carolina,† says that the small-pox never visited North Carolina but once, and that in the late Indian war, which destroyed most of those savages that were seized with it.

The Small-Pox spread in Salem, having been brought there by a company of cavalry of the Pulaski Legion, which in 1779 camped

*Dublin, 1737, p. 253.

†History of North Carolina, Raleigh edition, 1860, p 25.

there several days. Forty persons suffered from the disease, of whom only two died. Two years after that (in 1781) inoculation was introduced in Salem.* So meagre are statistics relating to the diseases and causes of death of all that period from the time of the first settlements to the time of the organization of the North Carolina Boad of Health that nothing is accurately known except the items one can gather from old letters and newspapers, or diaries such as that of Thacher's itinerary American Army in the war of 1777. One exception can be made to the diary so carefully preserved by the Moravian Church in their Archives. Although the note given to current events is short, the historian who is favored with an examination of these valuable documents will find a daily account of the births, marriages, deaths and baptisms of the members of that honored fraternity which has shed its benignant influences on the rest of the State for more than a century. It was also in Salem that the first vaccinations are recorded. In 1802 eighty persons were vaccinated there. It is likely that in Wilmington, Fayetteville, New Bern, Edenton and some of the older towns lying along the great water courses in the line of travel also had adopted vaccination, but no record has come to the eye of the writer.

We know nothing of the spread of the practice through the influence of these Christian pioneers, but if they were as diligent in the dissemination of the new prophylactic as they were in carrying the Gospel of Peace to the remotest wilds of civilization, we may be sure that they shared this beneficence with their neighbors.

Down to the period of the civil war cases of small pox occurred at long intervals and principally at the seaports. Indeed, so far apart did cases occur that at Wilmington, for instance, when a case was discovered it became necessary to rid the pest-house at Mt. Tirza of the fisherman who had taken possession, to admit the solitary case of small-pox in the person of a sailor. But with the war came an outbreak of small-pox, which increased as the four years rolled on, reaching its culmination in 1865–'66 among the great masses of freedmen who flocked to the towns when peace was established.

We all know the story of the scarcity and impurity of vaccine

*Reichel's Moravians in North Carolina; 12mo.; Salem, 1857.

virus during the war period, or if any have forgotten let them read the account of it as written by Dr. Joseph Jones (Spurious Vaccination in the Confederate Armies), and by Dr. James Bolton, of Richmond. Vaccinations which were inoculations of pus, and probably of syphilitic virus, were done from arm to arm by soldiers, and this communicated to people in civil life, causing the direst calamities before the practice could be stopped. After the war was over, and it became necessary to resort to wholesale vaccination, the virus furnished by United States Army officials was of the most unreliable character, defeating the most intelligent attempts at protecting the helpless throngs that crowded into the sea-coast towns.

The history of the small-pox from 1861 to 1866 in Wilmington alone would furnish a complete demonstration of the dangers of neglected vaccination, and the harm of spurious vaccination by crusts taken indiscriminately from doubtful vaccinifers. In the small-pox hospital here there were about 800 patients from August, 1865, to May, 1866—most of them negroes, and most of them unprotected by ante-bellum vaccinations.

There are many physicians in North Carolina who have been practising twenty-five years who have never seen a case of small-pox, but it will probably not be as many years before they will see cases, if the practice of vaccination just now is to comply with the requirements of insurance companies, most of which will not accept an applicant who is not protected by vaccination, or refuse by written declaration to pay a claim, if the death is from small-pox.

### *Statistics of Jails and Poor Houses.*

I have taken the reports of the Superintendents from the *Bulletin* for one month, chosen without particular selection from 1891, and the following are the results. The statistics are from 36 counties:

In three counties all were vaccinated.

" 1 " 15 out of 20 "

" 1 " 6 " 12 "

" 25 " *there were no vaccinations.*

In the 36 counties the total of inmates of the poor houses and jails was 864, of whom 104 were vaccinated. That is to say that less than *one* in *eight* were protected by the only known prophylactic. It may not be, and probably is not a fair deduction, to

conclude that the entire population is unprotected in the same ratio, but it demonstrates that lack of protection exists among the classes of our population, the criminal and dependent, where we know are usually located foci of infection. There are two chief influences that have brought about this state of things :

1st. There is a considerable anti-vaccination sentiment among the people at large. A prejudice which has grown out of the echoes of the English anti-vaccination societies which are found in the newspapers, and from the lack of conviction on the part of physicians about the necessity of vaccinating infants.

2d. The feeling of security which has overtaken doctors and their patients by the long disappearance of the scourge, and the knowledge of the fact that they can procure in a short time fresh and reliable vaccine.

The State Board of Health sounds the warning now, and this seems to be the appropriate time when so many representative physicians are present to call to their attention the fact that their patrons, who ever look to them for protection, are growing up ignorant of the risks they are running without vaccination.

THOMAS F. WOOD, M.D.,
*Secretary of the State Board of Health.*

DISCUSSION.

Dr. Haigh was much interested in the report of the Secretary. He wished to call attention to the fact that consumption had become implanted in those places that are much frequented as a resort for consumptives, whereas in former years they had been free from the disease. About fourteen years ago he was in Asheville and a friend was boasting of the fact that there had never been a case of consumption in a native and recommending the place as a resort. He made the remark that they would not always enjoy that immunity. He remembered when Italy was a famous resort for consumptives, but that latterly it was becoming deserted by these patients because consumption had gotten such a deep root there. Not long since his friend in Asheville wrote him that he had seen his first case of tuberculosis in one of their inhabitants.

Dr. Westray Battle said in reply that he took up his residence in Asheville about seven years ago, and that at that time there was a

prevailing idea that the section embracing an area of about one hundred miles by fifty enjoyed a complete immunity from consumption Whether that were so he was not prepared to say because no statistics were kept. It was said that a consumptive patient carried to that country would not transmit the disease. He has seen cases that were contracted there; but he thinks his confrérès would bear him out in the assertion that the section does enjoy quite a freedom from the disease among the natives.

In the matter of the failure on the part of physicians to vaccinate, Dr. Haigh asked how were we to overcome the difficulty? A physician does not like to order a lot of vaccine virus to keep on hand in case a person desires vaccination, for the virus deteriorates by keeping, and when the case presents itself you would probably not have any virus that is good; nor would he feel exactly at his ease to advertise that he had just received a fresh lot of vaccine and was prepared to vaccinate all who desired the protection. Then, as we are to receive a fee for the service, he cannot make up his mind to go around telling his patients that they ought to be vaccinated; it looks too much like he were using it as a means of increasing his income. He saw only one way out of the difficulty, and that is to take the matter out of the hands of the general practitioner and make it the duty of the superintendents of health, and make it compulsory.

Dr. Potter, Superintendent of Health for New Hanover county, has been in the habit of getting a large quantity of vaccine virus at intervals through the Secretary of the State Board of Health. He takes his stock of virus and goes to the schools and explains the importance of the measure, and then vaccinates all who are willing. In one school of 200 he vaccinated 150, and all the others had been vaccinated previously. He had very little trouble when once they understood the necessity of it He makes it a point each spring to go around and vaccinate all he can.

Dr. Wood explained to the members how they could at any time procure a fresh and reliable amount of vaccine virus to meet any emergency that might arise.

Dr. H. W. Lewis gave his experience in the matter of attempting to vaccinate the children of the schools. He put up a notice that he would visit the school at a certain date to vaccinate all who desired it, and when he reached the school he found that the pupils

had all taken to the woods. He went to another school and found they had no scholars. He thought the Superintendent of Health was placed in a very embarrassing position. He holds the office of Superintendent in his county. He complained that the salary of the Superintendent was left to the Board of Commissioners, and that the service was worth three or four times what they would allow. He thought the salary ought to be fixed by the Legislature in proportion to the number of inmates in the poor house and the population of the county. The remuneration is so small that it is seldom a competent man can be found willing to accept the office. Let there be evidence of successful vaccination before a pupil may be admitted to the public schools. He thought as Dr. Wood said, that we are raising a rich harvest ready for the reaper. He suggested that the State Board of Health prepare a pamphlet for distribution among the people teaching them the vital importance of vaccination.

Dr. D. C. Parris said that in his county (Orange) where he is the Superintendent of Health, vaccination is going by default. There is practically no vaccination except a case now and then in an applicant for life insurance. He thinks nothing but a compulsory law would bring about the desired end.

Dr. Cheatham had listened with much interest to the subject. Our population is of such a character and our railroads of such extent, affording quick and ready communication with other parts of the country, that we are liable at any time to the introduction of small-pox. Numbers of people are constantly making visits to the northern cities where cases of the disease are frequently occurring and where they are liable to come into contact with it. These people are liable to bring it into our midst. He thinks the Society should take some steps toward having a law enacted on the subject.

The President thought nothing but a disastrous epidemic would awaken the people from their lethargy.

Dr. Parris offered a resolution which was amended by Dr. Roberts to read as follows:

*Resolved*, That the Board of Health be instructed to memorialize the Legislature of the State of North Carolina in regard to a law of compulsory vaccination.

Dr. Graham thought that the Legislature was apt to look upon anything presented by the medical profession with suspicion, and

thought it would be best to approach them through the Superintendent of Public Instruction.

Dr. Hodges thought a mere appeal would amount to nothing, but that a committee should be appointed to be present when the bill is presented to work it up by direct conversation with the individual members.

Dr. Roberts explained that he had put the resolution in such form that just what to do and how to do it should be left to the discretion of the Board of Health.

Dr. Lewis amended the resolution as follows: That a committee be selected by the Board of Health to go to Raleigh and get through the best law possible on vaccination.

The amendment was adopted.

*Election of a New Member.*

The election of a new member on the Board of Health to fill the unexpered term of Dr. Baker was declared in order.

Dr. H. W. Lewis, of Jackson, and Dr. W. H. Harrell, of Williamston, were put in nomination. The result of the ballot was in favor of Dr. Harrell, and on motion of Dr. Lewis, the election was made unanimous.

The Conjoint Session was declared adjourned, and the Society was called to order.

*Report of Committee on Credentials.*

A report of the Committee on Credentials was presented and accepted, and the Society then adjourned.

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SECOND DAY—Afternoon Session.

The Society was called to order at 3 o'clock.

*A Telegram of Greeting.*

The Secretary read a telegram of greeting from the Medical Society of the State of Pennsylvania, which was duly appreciated, and, on motion, the Secretary was instructed to wire in return the fraternal greeting of this Society.

The Secretary said he had received the report of the Chairman of the Section on Practice of Medicine.

On motion, the paper was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

*Report of the Committee on Finance.*

Dr. Tayloe presented the following report of the Committe on Finance :

Your Committee have examined the Treasurer's accounts and find them correct, as follows :

| | |
|---|---|
| To balance on hand from last year | $1,564 16 |
| " amount paid out | 834 36 |
| Balance on hand | $ 729 80 |

The Committee recommend an assessment of $2.00 *per capita* for the ensuing year, and that the salary of the Secretary and Treasurer be the same for next year.

D. T. TAYLOE,
M. P. PERRY,
S. D. BOOTH,
*Committee on Finance.*

On motion the report was adopted.

*Report of Committee on Credentials.*

The Committee on Credentials made a report, which was adopted.

*Excursion to the Hammocks and Reception at the Y. M. C. A. Hall.*

Dr. Shepard, for the Committee of Arrangements, announced on the programme for Thursday an excursion to the Hammocks in the afternoon and a general reception at the Y. M. C. A. hall in the evening.

*Election of Members on the Board of Medical Examiners.*

The Chair announced that the Society was ready to hear nominations to fill two vacancies on the Board of Medical Examiners caused by the expiration of the terms of office of Drs. Purefoy and Payne.

The following names were placed in nomination: Drs. J. M. Baker, H. B. Weaver, W. H. H. Cobb, W. C. Galloway and S. T. Nicholson.

Dr. Cobb expressed his thanks for the nomination, but requested to have his name withdrawn.

It was moved and adopted that each member vote for both vacancies at one time.

Drs. Riddick, Summerell and Tayloe were appointed tellers.

The following was the result of the ballot:

Total number of votes cast 129; necessary to a choice 65. Dr. Baker received 79 votes; Dr. Weaver 75; Dr. Galloway 56, and Dr. Nicholson 43.

Dr. Julian M. Baker, of Tarboro, and Dr. H. B. Weaver, of Asheville, were declared duly elected as members of the Board of Medical Examiners of the State of North Carolina, to serve for six years.

*Election of Officers of the Society.*

Nominations for President being declared in order, Dr. J. W. McNeill was put in nomination by Dr. Burbank

There being no further nominations, on motion, the Secretary was instructed to cast the vote of the Society for Dr. J. W. McNeill, of Fayetteville.

Dr. McNeill was declared duly elected President for the ensuing year.

The following names were put in nomination for Vice-Presidents: Drs. W. C. Galloway, H. H. Harris, J. M. Hadley, Thomas Hill, S. T. Nicholson, D. McBryde and R. W. Tate.

On motion, it was decided that the four receiving the highest number of votes be declared elected, and that they take rank according to the number of votes received; also that each member be allowed to vote for four candidates on one ballot.

As the result of the election the following were declared elected:

Dr. W. C. Galloway, of Winston, 1st Vice-President; Dr. H. H. Harris, of Wake Forest, 2d Vice-President; Dr. J. M. Hadley, LaGrange, 3d Vice-President; Thomas Hill, Goldsboro, 4th Vice-President.

The following names were put in nomination for Secretary: Drs. R. D. Jewett, J. W. Long, J. A. Hodges and T. M. Jordan.

Drs. Hodges and Jordan both requested that their names be withdrawn.

Dr. Long received 43 votes and Dr. Jewett 68.

Dr. R. D. Jewett, of Wilmington, was declared elected Secretary, and, on motion of Dr. Long, the election was made unanimous.

Dr. M. P. Perry, of Macon, being the only nominee for Treasurer on motion, the Secretary was instructed to cast the vote of the Society for him, and he was declared duly elected.

*Report of Committee on Nominations.*

The Committee on Nominations made the following report, which was received :

*Orator.*—Dr. J. A. Hodges.

*Essayist.*—Dr. J. M. Faison.

*Board of Censors.*—W. C. McDuffie, T. E. Anderson, W. H. H. Cobb, Sr.

*Obituary Committee.*—T. F. Wood, J. G. Riddick and H. B. Weaver.

*Committee on Publication.*—Geo. G. Thomas, T. S. Burbank, Thomas F. Wood, R. D. Jewett.

*Delegates to American Medical Association.*—C. J. O'Hagan, E. H. Horneday, L. J. Picöt, G. W. Long, B. L Long, E. C. Laird, W. T. Cheatham, J. M. Baker, T. D. Haigh, Hubert Haywood, J. Howell Way, D. W. Bulluck, S. Westray Battle, S. S. Satchwell, R. L. Payne, Jr., J. Y. Fitzgerald.

*Delegates to the Southern Surgical and Gynæcological Association.*—D. T. Tayloe, W. J. Love, A. W. Knox.

*Delegates to the Virginia State Medical Society.*—W. H. Harrell, R. D. Jewett, T. P. Wynn.

*Delegates to the South Carolina Medical Society.*—D. M. Prince, J. F. Harrell, W. A. Graham.

*Delegates to the American Public Health Association.*—H. T. Bahnson, John Manning, J. H. Marsh.

*Delegates to the British Medical Association and International Congress.*—D. G. Colwell, A. D. McDonald, J. W. Jones.

(Signed) J. W. McNeill,
H. H. Harris,
T. S. Burbank,
W. H. Harrell,
E. C. Laird.

Dr. S. S. Satchwell presented a paper entitled Biographical Sketch of Dr. James I. Phillips, Deceased, of Edgecombe County.

On motion, the paper was read by title and referred to the Committee on Publication. [See subsequent number of JOURNAL.]

*Time and Place of Next Meeting.*

The question was raised as to the time of the meetings of the Society, some of the members thinking it should be held at an earlier date. On motion, it was decided that the matter should be left with the Committee of Arrangements at the place selected for the meeting.

In the selection of a place for the next meeting of the Society Winston-Salem and Raleigh were put in nomination with the choice of the former.

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SECOND DAY—Evening Session.

The Society was called to order by the President, who thanked the ladies for their presence in the following happy terms:

"They cheer us on to a higher place of usefulness in our profession. I believe the medical profession has been ever warm in its championship and admiration for true womanhood. When we see women walking uprightly, fulfilling that mission that her Creator manifested and desired she should, she inspires in us an emotion of profound admiration for the beauty and loveliness of her character. Ever since the day when God took the rib from Adam's side and made woman she has been a ministering angel to wipe away the tear of grief and sorrow from man's brow and scatter flowers in the pathway of his life. Indeed, under such circumstances she is the delineation and embodiment of all that is lovely and beautiful. It is painted upon her cheeks in heavenly smiles, flows in her ringlets, charms in her voice, throbs in her breast, moves in her steps, and mingles and shines in the graces of her love. In sorrow, sadness, pleasure, woe and pain she is untiring, unceasing in her devotion to those duties which alone make life worth living. She is oftentimes the physician's main reliance, and by her intuitive kindness and quick perception is the means of saving many poor sufferers from untimely passing to that mysterious beyond, that undiscovered country, from whose bourne no traveller returns."

The essayist, Dr. Oscar McMullan, was then introduced by Dr. Thos. S. Burbank, and read the Annual Essay, entitled The Ideal in Medicine.

The essay received the marked attention and hearty applause of the very large audience.

Dr. J. W. Long was introduced by the President, and delivered the Annual Oration, entitled Character the True Test of the Physician.

Dr. Long's address extended over an hour and a quarter, and he was frequently interrupted by the applause of his audience.

On motion, the thanks of the Society were extended to both the Essayist and the Orator for their able and interesting productions, and the papers were referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Dr. W. H. H. Cobb, a member of the Board of Censors, being compelled to return home, Dr. Herring was appointed to act in his place.

On motion, the Society adjourned.

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THIRD DAY—Morning Session.

The Society was called to order at 10 o'clock by the President.

*Report of Committee on Credentials.*

The Committee on Credentials made a partial report, which was adopted.

Dr. E. C. Laird read a paper on The Therapeutic Value of Mineral Waters. [Referred to the Committee on Publication.]

Dr. R. H. Lewis read a paper entitled A Few Plain Words About Glaucoma.

On motion, the paper was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Dr. Michael, of Baltimore, read a paper entitled Obstetrical Teaching.

On motion, the paper was referred to the Committee on Publication.

*Report of the Committee on the Duffy Prize.*

"We, the Committee appointed at the last meeting of the Society at Asheville, to decide as to the merits of essays for the 'Duffy Prize,' beg leave to report that two essays were offered, neither of which are on the subject for which the prize was offered.

"Dr. Duffy was wired, and he says in reply: 'Prize was offered for Treatment of Hæmorrhagic Malarial Fever. Doubtful about other questions. Will write.

"H. H. HARRIS,
"W. J. JONES,
"JOHN M FAISON,
"*Committee.*"

(Since the meeting adjourned the following communication has been received by the Secretary):

"NEW BERNE, N. C., May 18, 1892.

"*Dr. Julian M. Baker, Secretary of the N. C. Medical Society:*

"DEAR SIR:—Your telegram, which was directed to my brother Charles, was received by me after some delay. I have answered by telegram as well as I could in brief, and now supplement by saying that it is my impression that several years ago (I think during the Presidency of Dr. Bahnson) it was suggested that the prize be offered for some subject not so localized as treatment of hæmorrhagic malarial fever would necessarily be. I think I either consented to the suggestion or left it discretionary with Dr. Bahnson or the Committee that year. I have noticed, however, that since that time the transactions or minutes of the Society have shown that the prize was, as originally stated, for treatment of hæmorrhagic malarial fever. That being the general impression, it would not invite competition in other fields, and essays would naturally be withheld that might otherwise be offered. I did not know nor think any other subject than hæmorrhagic malarial fever would be considered in that connection at this time, nor any time without specification. It was my intention to stimulate research in that field. As the money has been paid to the Society, they can do as they please with it, but it would be contrary to my feeling to award it to any other subject unless it was previously published and generally understood that writers were not restricted as to subject.

"Yours, very truly,

"FRANCIS DUFFY."

Dr. A. B. Pierce read a paper on the Treatment of Pneumonia.

Dr. Pierce, in conclusion, called attention to the fact that he laid especial stress upon the specific action of mercury. He thinks all the symptoms will yield if we can get the specific effects in the first six or seven days.

Dr. Holmes does not believe in the universal use of calomel, but thinks it is often a most useful remedy, especially in pneumonia.

On motion, Dr. Pierce's paper was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Dr. Thos. S. Burbank made an oral report of operation on what was supposed to be an ovarian tumor. After the abdomen was opened the tumor was found firmly bound down to all the adjacent viscera. The womb could not be found. The operation was for exploratory purposes, with the understanding that if thought best the tumor should be removed. It was decided to remove it, and in breaking up the adhesions his hand ran into a cancerous mass that involved the rectum and the adjacent parts. The rectum, which had been ulcerated through in two places, was resected, about five inches being taken away. The gut was then attached to the angle of the median incision to make an artificial anus. The patient was put to bed in complete shock, and died in thirty-six hours. His principal object in bringing the case to the attention of the Society was to show some of the scrapes we get into when we invade the abdominal cavity.

### *Report of the Committee on the Pittman Prize.*

Dr. Burbank, from the Committee on the Pittman Prize, reported that there had been only one paper presented, and this not bearing evidence of sufficient original thought and investigation, or general merit, the Committee suggested that no reward be made.

On motion, the report was adopted.

### *Installation of Officers.*

The President appointed Drs. Bahnson and Pierce to escort the President-elect to the stage.

In tendering the gavel to his successor, Dr. Cheatham returned his heart-felt thanks to the Society for the courtesies and assistance they had extended him, and introduced Dr. J. W. McNeill.

In assuming the Chair President McNeill said he felt assured that the nominee of the Democratic Convention at Raleigh yesterday, after the long contest, does not feel the pride in his heart this morning that he does after being nominated by this dignified and scientific body of the Medical Society of the State of North Carolina. He promised that, with the assistance of the members, when the Society meets again next year we will be one step further in the advancement in the science and practice of medicine.

*Appointment of Chairmen of Sections, etc.*

The Chair announced the following appointments for the ensuing year:

*Chairman of Section on Practice.*—Dr. E. M. Summerell.

*Chairman of Section on Surgery.*—Dr. J. P. Munroe.

*Chairman of Section on Obstetrics.*—Dr. J. H. Marsh.

*Chairman of Section on Gynœcology.*—Dr. R. H. Whitehead.

*Chairman of Section on Materia Medica.*—Dr. Thos. Stamps.

*Chairman of Section on Therapeutics.*—Dr. C. E. Hilliard.

*Chairman of Section on Pathology and Microscopy.*—W. T. Pate.

*Chairman of Section on State Medicine and Medical Jurisprudence.*—S. J. Montague.

*Leader of Debate.*—Dr. D. T. Tayloe.

*Committee on Pittman Prize.*—Drs. D. W. Bulluck, H. T. Bahnson, T. D. Haigh.

*Committee on Duffy Prize.*—Drs. N. B. Herring, D. McBryde, Duncan Smith.

*Vote of Thanks.*

Dr. Hodges offered a resolution that the thanks of the Society be extended the citizens of Wilmington, and especially the medical profession, for their kindness in entertaining the Medical Society.

The resolution was adopted.

*Dr. Bahnson and the Report of the Board of Censors.*

Dr. Bahnson, acting temporarily on the Board of Censors, asked the action of the Society on a question relating to the report of the Board on yesterday. One of the gentlemen involved by that report had presented himself and asked for a hearing. He being the only

member of the Board present at the time, he asked the wish of the Society as to whether other members be appointed to act with him, or whether the matter come before the Society.

The motion was made that the matter be brought before the whole Society.

The Chair thought it would be best to refer it to the Board, that they may have time to investigate the charges fully.

After some discussion, the motion to refer to the Society was lost.

A motion to reconsider was carried.

Dr. Hodges thought the case an unusual one, and suggested the appointment of two members to act temporarily with Dr. Bahnson. This is the duty of the Board and just what it was instituted for, and he thought it should be left to it.

Dr. Robinson rose to explain why he was unable to be present sooner, and went on to state the facts in the case which had been acted upon by the Board.

Dr. Hodges in view of the fact that the gentleman had been suspended on yesterday, objected to his making any statements.

After some further discussion on the matter, Dr. Long asked the ruling of the Chair as to whether we have the right to take the matter out of the hands of the Board of Censors, and the Chair ruled that we have not the right.

Dr. Baker made a motion that two members be appointed to act with Dr. Bahnson, and that the matter be referred to them immediately.

The motion prevailed, and the Chair appointed Drs. A. B. Pierce and W. T. Cheatham.

Dr. J. D. Roberts made a report of a Case of Abnormally Low Temperature.

On motion, the report was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

On motion, the Reporter was voted the usual fee of $25.

*Supplementary Report of the Board of Censors.*

Dr. Bahnson made the following supplementary report of the Board of Censors:

"The Board of Censors beg leave to report as follows:

"WHEREAS, Dr. M. E. Robinson has appealed for trial before

the Board of Censors on charges of advertising and vending a nostrum for the cure of drunkenness, and

"WHEREAS, The said Dr. M. E. Robinson acknowledges that he has so advertised, and further, that he has entered into a contract with the proprietor of the said nostrum, whereby a certain sum shall be paid to the said proprietor for each patient treated therewith, therefore be it

"*Resolved*, That this Board of Censors declares said charges of unprofessional conduct are fully sustained and recommend that the name of the said Dr. M E. Robinson be dropped from the roll of the Society.

Very respectfully submitted,

H. T. BAHNSON, *Ch'm.*

Dr. Pierce said that Dr. Robinson acknowledges he has done wrong, and that if he is willing to confess his error and renounce his effort in the matter, he is willing to restore him to his former position in the Society.

Dr. Bahnson said that was the consensus of opinion of the whole Society. It is a matter of principle and not of feeling against Dr. Robinson. The Society has nothing to do with the good that may result from Dr. Robinson's treatment, but he is vending a nostrum. It is manifestly in direct violation of every principle and the letter of the Code of Ethics.

A motion was made that the report be received.

With the permission of the Society Dr. Robinson said he would like to state that he knew the remedy, but did not know the constituents thereof. Dr. Bahnson had intimated that he was under contract. He told the Board of Censors that if he had done wrong he was willing to correct his action.

Dr. Cheatham said the Committee had only one duty to perform, namely, to investigate the charges; they had done this and found them true.

A motion to receive the report of the Board was carried.

Dr. Pierce offered a resolution that if Dr. Robinson acknowledged his error and promised to correct it, that he be readmitted to his former standing in the Society.

Dr. Bahnson rose to a point of order. He said the report of the Board of Censors had been received by the Society expelling Dr. Robinson. The expression of Dr. Robinson before the meeting

was radically opposite to that before the Board, as he understood it. He was willing to withdraw the advertisement, but that had already done its harm. He could not avoid treating patients that came to him in answer to his advertisement. He made no promise to the Board that he would not use this nostrum.

Dr. Robinson said that Dr. Bahnson had asked him that question and that he had replied "yes."

Dr. Bahnson explained his point of order by saying that the action of the Society could not be reversed in any such way; that if Dr. Robinson desired to come into the Society, the regular door was open to him as it was to anyone else, and that he could not come in by the back-door.

Dr. Pierce thought that, as Dr. Robinson had confessed his error and was willing to renounce it, he should be restored to his former position in the Society.

Dr. Bahnson called for the ruling of the Chair on his point of order.

The Chair ruled that it is out of order to take any further action in the matter at this time; that Dr. Robinson will have to come back into the Society by the usual way.

### *Report of the Committee on Credentials.*

During the meeting the following names were presented by the Committee on Credentials: Drs. P. A. Nicholson, E. L. Cox, E. G. Goodman, W. H. Atkinson, W. J. Harrell, Russell Bellamy, W. F. Stokes, A. J. Patterson, P. R. Hatch, G. L. Clark, R. W. Mills, H. Johnson, W. V. McCanless, C. G. Carter, A. G. Jones, S. P. Wright, F. P. Gates, G. V. Cate, T. S. McMullan, K. A. Blue, W. R. Mayo, W. E. Fitch, C. B. Ingraham, J. B. Shamburger, W. D. McMillan, G. M. Hackler.

### *Members Present.*

The following members were present at the meeting: Drs. J. C. Shepard, F. J. Cooper, Henry T. Bahnson, Joseph Graham, J. J. Mann, W. J. H. Bellamy, S. D. Booth, J. L. Ray, J. F. Harrell, Thomas M. Jordan, J. T. Nicholson, R. F. Lewis, M. H. Futrell, S. T. Nicholson, C. M. Poole, B. L. Long, J. E. Grimsley, C. G. Nichols, Willis Alston, A. McKinnon, J. H. Marsh, T. D. Haigh,

S. J. Montague, A. D. McDonald, F. W. Potter, W. H. Harrell, H. P. Murray, W. H. Bagwell, Julian M. Baker, E. M. Summerell, D. T. Tayloe, J. D. McMillan, Ogden D. King, J. M. O'Kelly, R. C. Councill, J. D. Croom, D. McBryde, J. R. McClelland, K. P. Battle, Jr., W. T Pate, D M. Prince, S. Westray Battle, G. W. Purefoy, C. E. Hilliard, M. H. Fletcher, H. B. Weaver, W. P. Whittington, D. G Caldwell, R. D. Dickson, M. P. Perry, E. C. Laird, W. W. Lane, J. T. Schonwald, Duncan Smith, D. W. Bulluck, W. C. Galloway, L. M. Archey, W. H. Whitehead, R. D. Jewett, W. H. H. Cobb, W. J. Jones, Albert Anderson, N. B. Herring, J. D. Roberts, J. C. Grady, R. W. Tate, S. S. Satchwell, W. L. Crouse, W. A. Ingram, H. H. Harris, D. C. Parris, J. P. Munroe, J. W. Long, A. B. Pierce, H. W. Lewis, J. McDe Armon, Thomas F. Wood, W. J. Love, E. H. Hornaday, T. S. Burbank, E. A. Anderson, W. L. Best, T. P. Wynn, A. Holmes, J. M. Hadley, J. W. McNeill, M. Bolton, F. C. James, Thomas Stamps, Duncan Sinclair, R. W. Thomas, Thomas Hill, W. V. McCanless, J. A. Hodges, G. J. Robinson, W. J. Harrell, Geo. G. Thomas, W. T. Cheatham, G. F. Lucas, R. W. Mills, J. M. Manning, R. H. Whitehead, H. T. Chapin, J. F Sandeford, M. F. Fox, J. T. Rieves, B. F. McMillan, J. F. McKoy, W. S. Anderson, J. L. Nicholson, J. A. Faison, G. L. Wimberly, J. A. Stevens, E. Porter, J. P. Fairrington, H. H Whitaker, J. E. Ashcraft, W. D. McMillan, J. G. Blount, L. J. Picöt, J. M. Faison, G. W. Long, R. L. Payne, Jr., W. K. Anders, R. H. Lewis, O. McMullan.

*Adjournment.*

On motion, the Society adjourned to meet in Winston.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF NORTH CAROLINA—SESSION HELD IN WILMINGTON MAY 16TH, 17TH, 18TH, 19TH, 20TH, 1892.

WILMINGTON, N. C., May 16, 1892.

The Board of Medical Examiners met at the rooms of the Orton House, at 9 o'clock, a. m., Monday, May 16th, 1892.

There were present Drs. W. H. Whitehead, President; George Gillett Thomas, Robt. Lee Payne, Jr., George W. Long, L. J. Picôt, Secretary.

Drs. Long and Thomas were appointed as the Committee on Finance. The bills and vouchers of the Secretary were approved.

On motion of Dr. Thomas it was ordered that Dr. Picôt be reimbursed his expenses as a witness to Alamance Court in the case of J. T. F. Cummings vs. Huffman and Gerringer, executors.

Drs. Young and Purefoy came in on the afternoon train and reported for duty.

The first examination was held by Dr. Thomas, on Chemistry, at the building of the Young Men's Christian Association. Two examinations were held daily, and on Wednesday three, one of them, on Materia Medica and Therapeutics, at night.

Dr. W C. Kiser, of Reepsville, was granted an oral examination in his bed, on account of an attack of sciatica.

The examinations were written, as heretofore, and a standard of 80 per cent. required. There were 69 applicants, and the following were granted license :

Dr. Robert H Stancell, Margarettesville.
" S. L. Martin, Leaksville.
" W. B. Bullock, Franklinton.
" L. A Crowell, Lincolnton.
" H. J. Thomas, Winston.
" J. E. Dellinger (col.), Lowesville.
" A. J. Crowell, Cobwin's Store.
" E. A. Rainey, Germanton.
" C. M. Jones, Tarborough.
" R. W. Smith, Hertford.
" H. L. Baird, Asheville.
" H. S. Williams, " .
" J. Thomas Wright, Salisbury.

Dr. N. B. Houser (col.), Charlotte.
" William R. Ballou, New York City.
" Robert L Caviness, Coleridge.
" John W. Jones (col.), Warrenton.
" Joshua Tayloe, Washington.
" J. B. Griggs, Elizabeth City.
" T. A. Boaz, Price.
" James T. Rieves, Julian.
" W. C. Ashworth, Ashboro.
" C. J. Oliveros, Asheville.
" E. J. Buchanan, Salisbury.
" W. C. Folger, Dobson.
" A. H. Harriss, Wilmington.
" Andrew J. Koontz, Roaring River.
" Claude A Adams, Carry.
" Henry M. Long, Statesville.
" John C. Twitty, Rutherfordton.
" Charles S. Summers, Winston.
" T. V. Roberson, Weaverville.
" S E Pennington, Sturgill's.
" Frank Roberts, Marshall.
" S C. McGilvra, Asheville.
" William Bowen, Knoxville, Tenn.
" M. E Gattis, Raleigh.
" J. C Rodman, Washington.
" J. W. Costen, Sunbury.
" M. S. Stevens, Enochville.
" John G. Blount, Washington.
" John H. Brunett, Wadesboro.
" S. L. Perkins, Solitude.
" John Bynum, Winston.
" H. R. Hoover, Elm City.

Total 45.

Dr. E. J. Buchanan, having made the highest grade on all the branches, is entitled to the Appleton Prize.

During the interval between the meetings of the Board in 1891 and 1892 temporary licenses were granted to the following named persons :

Dr. N. B. Houser.
" S. W. Jones.
" A. J. Koonth.
" W. C. Folger.
" M. E. Gattis.
" H. L. Baird.
" W. A. Dees.
" E. L. Corbell.
" William L. Lassiter.
" J. B. Griggs.
" L. G. Frazier.
" H. J. Thomas.
" J. W. Jones.
" John Brunett.
" M. L. Stevens.
" LeRoy Long.
" C. S. Summers.
" J. T. Rieves.
" R. A. Moore.
" T. L. Douglass.
" H. R. Hoover.
" J. F. Powell.
" C. J. Oliveros.
" S. C. McGilvra.
" —— McDonnell.

The fees were turned over to the Treasurer by the Examiners granting the above licenses.

These temporary licenses expired on Monday morning, May 16th, and the holders who failed to secure permanent licenses, or a renewal of temporary license, under the rules, are liable to indictment.

The terms of service of Drs. George W. Purefoy and Robert Lee Payne, Jr., having expired, Dr. H. B. Weaver, of Asheville, and Dr. Julien M. Baker, of Tarborough, were elected to fill the vacancies.

After a night's session, lasting until 3 a. m., Saturday, May 21st, the Board adjourned.

W. H. Whitehead, M.D., *President.* L. J. Picôt, M.D., *Secretary.*

# [APPENDIX.]

## HYPERTROPHY OF THE THIRD OR PHARYNGEAL TONSIL—ADENOID VEGETATIONS IN THE NASO-PHARYNX, IN CHILDREN.

By K. P. Battle, M.D., Surgeon for Diseases of the Eye, Ear, Throat and Nose to St. John's Hospital, Raleigh, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

It is not my purpose to attempt an exhaustive essay on this subject, but to give a résumé of the more important points of what seems to me to be our knowledge of it at the present time, and with special reference to its practical aspects. I desire, without claiming any originality, to call attention to an affection which is to a great extent neglected among us, and which, though not so common as in more northern climates and in the unhygienic conditions found in the larger cities, is still not so rare as has been supposed. It is present and doing harm in many cases when we may not suspect it, and is usually recognized only when in so aggravated a form that it cannot be overlooked.

Anatomical and histological descriptions of the normal tissue had been given before, but Luschka's writings in 1862 and later attracted so much attention that it is frequently called Luschka's tonsil. Meyer, of Copenhagen, in 1868 published an elaborate paper on "Adenoid Vegetations in the Naso-Pharyngeal Cavity." This was the first important contribution from a clinical point of view, and has become a classic. He was followed in due time by a constantly increasing number of writers in the same field, abroad and in the United States. We are indebted to Löwenburg, Guye, Fränkel, Tornwaldt, Woakes, Roe, Bosworth, Hooper, Cohen, Gottstein, Delavan, and a host of others too numerous to mention. I think it not necessary to be more exact in giving the credit due to different authors for the statements I make in a paper of this kind.

There is a lymphatic ring of tissue, situated in the mucous membrane and under it, between the mouth and nose above and the œsophagus and trachea below, the essential elements of which are closed lymph follicles, numerous separate lymph corpuscles outside

of these, and lymphatic vessels, all embedded in more or less connective tissue and richly supplied with blood-vessels. These follicles have the same structure as the solitary glandules of the small intestines, having a thin capsule and very delicate trabeculæ of connective tissue fibers running through the interior, forming interspaces partly filled with lymph corpuscles. This is known as lymphoid tissue, and is characteristic of lymphatic glandular tissue all over the body. In the mucous membrane in the region referred to are also found acinous glands provided with secreting cells and ducts for supplying mucus to the surface. These two kinds of tissue are, in the parts spoken of, more or less intermingled but not equally distributed. They are grouped in different places, and form, between the pillars of the fauces, the distinct masses well-known as the faucial tonsils; on the vault, sides (as far forward as the openings of the Eustachian tubes) and posterior wall of the upper pharynx, they form the more flattened and diffuse collection known as the pharyngeal tonsil; and on the surface of the base of the tongue a similar arrangement is found called the lingual tonsil. In other parts these structures are more scattered and comparatively few and have been called the discrete tonsil.

I may say here, in passing, that there is some of this lymphoid tissue in the larynx, and especially just below the glottis, and that Bosworth has recently made the interesting suggestion that probably catarrhal croup may be explained by the enlargement of that tissue. He has treated this form of croup with very large doses of the syrup of the iodide of iron (five-drop doses every hour in a child of six months, and fifteen drops every hour in one of four and a half years, for four or five hours), and thinks the drug was the cause of the cure which followed. But to resume: These tonsils are all of the same nature and function and are subject to the same diseases, though not to the same degree. For instance, acute inflammation of the faucial tonsils is common, of the pharyngeal it is rare. In hypertrophy it is the lymphoid tissue which is particularly at fault. It is essentially a lymphatic hyperplasia, and this tissue then predominates to such an extent that the name "adenoid," as indicating true glandular tissue, has been denied to it by some, the terms "lymphatism" and "lymphatic hypertrophy" being preferred.

What is the function of these structures? It is not yet definitely

settled, but probably three actions may be assigned to them: (1) The formation of blood, owing to their production of leucocytes in common with other lymphatic glands. (2) The protection of the body, to a certain, though limited extent, from dangerous invading micro-organisms in food and air by the destructive action upon them of great numbers of wandering phagocytes which they are known to contain, according to the theory of Metschnikoff and Killian. (3) The furnishing of a lubricating secretion to aid in deglutition by the muciparous glands which form a part of their structure.

But we are now concerned especially with the pharyngeal or third tonsil. This mixture of glandular and lymphoid tissue is thickest over the vault and posterior wall, a quarter of an inch or less in depth, and is here so arranged that the surface is thrown into irregular folds and furrows, mainly longitudinal It becomes thinner and disappears as a distinct mass of tissue as we come down into the lower pharynx below the level of the palate. In the lower part of this tonsil, in the middle line, is found, in some cases, an opening about the size of a pin's head leading upward into a small sac in the mucous membane, which may be as large as three-quarters of an inch long and a quarter wide. This is the so called pharyngeal bursa of Luschka and Tornwaldt. Though not always present, it was regarded by them and their followers as a normal condition, while others looked upon it as not a true bursa, but a cavity occasionally formed by the adhesion of the folds bordering on a deep median fissure in that region. It is sometimes the seat of disease, and then this may be the principal pathological change in a naso-pharyngeal catarrh. I have seen a very pretty case of distention of the little cavity with pus. But the discussion of this affection is outside of our subject, for in a case of adenoid vegetations the presence or absence of a so-called bursa, whether diseased or not, may be ignored as insignificant.

This description of the third tonsil applies to children. At about the age of puberty the lymphatic part of it generally begins to atrophy, in common with similar tissue elsewhere in the throat, and in the adult, in the normal condition, the soft parts are usually seen to be thinner and smoother than before. The tonsil is frequently hypertrophied in children, and this is the affection which we have now to consider.

*Causes*—It is essentially a disease of childhood. Bosworth regards the thickened condition found in the vault of the pharynx of adults in the ordinary post nasal catarrh to be, in many instances, of the same nature, but I do not propose to pursue the subject in that direction. It frequently begins in infancy and in many cases seems to be hereditary. It is very commonly found in these children of a lymphatic temperament who are disposed to glandular enlargements elsewhere, whether scrofulous or not. It is often seen in truly scrofulous children, but is by no means confined to them. It may be found in children who are otherwise apparently in perfect health—among the rich as well as the poor. A tendency to hypertrophy may be the result of repeated cold, even in healthy children, but especially in those who lack vigor of constitution from any cause.

*Pathology.*—This, as has been stated, is essentially a hyperplasia of the lymphoid tissue normally present, but the connective tissue is also increased in varying degrees. The first, as a rule, predominates, and then the growths are rather soft and pulpy. When the connective tissue is in greater proportion they become denser and tougher, but this is less common. The muciparous glands also are increased in size and their excessive secretion is added to by the deepened fissures between the hypertrophied folds and ridges taking on for the time the function of mucus-forming glands.

The shape of the growths is usually more than an exaggeration of the furrowed condition normally found in children. The folds are greatly enlarged, and there are frequently many finger-like projections from the surface, making it lobulated and extremely irregular. In the denser varieties the swelling is apt to be less uneven. Their size varies. They are sometimes so small as to give rise to no symptoms, and again are so large as to fill the upper pharynx more or less completely. They do not, however, grow indefinitely, as do polypi, resembling in this respect the changes seen in hypertrophy of the faucial tonsils. As in the case of the normal tissue, the hypertrophy has a tendency to stop and the tumor to shrink at puberty, though the effect of this is no doubt increased by the natural enlargement of the bony parts, as the body becomes more developed at that period.

*Symptoms.*—When the case is an aggravated one, these are characteristic and well marked. Nasal respiration, though rarely

impossible for short periods, is difficult and tiresome, and mouth-breathing is more or less constant day and night, labored breathing in sleep and snoring being often distressing to the parents as well as the child. The passage of air through the nose being interfered with, the sense of smell is impaired. For the same cause—want of proper respiration—there is a lack of the normal muscular activity and vigorous life, and a deficient oxygenation of the blood, and the general health suffers. The child is more liable to disease of the throat and lungs. Sometimes there is an improper development of the chest and a pigeon-breasted condition independently of any rickety constitution.

The voice has a muffled or dead character, somewhat like that of a bad case of acute rhinitis.

Profuse secretion is common, and it may be forced forward instead of passing downward, so that in young children there may be the appearance of a chronic bad cold when the trouble is really in the vault of the pharynx. This mistake is frequently made and I insist upon it strongly. The secretion is in other cases, however, not a marked feature.

The physiognomy in the severe cases is characteristic. There is a broadening and flattening of the parts about the bridge of the nose and an open mouth, giving a vacant and stupid expression.

There is always more or less deafness, sometimes extreme, and suppuration of the middle ear may be a complication.

In lesser degrees of the affection the symptoms vary in like proportion, and there are cases in which, though there is some degree of hypertrophy, they are so slight that they may be disregarded; but they should be watched. It is particularly important to note the effect of these hypertrophies on the ear. Speaking now of all degrees of severity of the disease, the following statements may be made:

1. The great majority of them have ear complications.

2. The great majority of ear troubles in children, certainly of the more or less chronic ones, have their cause in vegetations at the vault of the pharynx.

3. Very many cases of deafness in adults are the result of pharyngeal adenoids in early life.

4. Impairment of hearing may be the only symptom of their presence.

The last was lately pointed out by Woods, of Baltimore, and was confirmed in a recent case in our practice in which the removal of the growths seemed to materially aid the aural treatment in a complete cure. In all cases of deafness in children they should be looked for.

The explanation of the involvement of the ears varies according to the size of the adenoids present. Whatever cause acts so as to prevent the proper opening of the Eustachial orifice for the frequent admission of air to the middle ear will result in the rarefaction of the air in that chamber by absorption, consequent depression and undue stretching of the membrana tympani and other changes, seriously impairing the function of the ear. This may be brought about by direct pressure of the growths on the mouths of the tubes, or by their presence in less degree, but still sufficient to cause interference with the muscular movements concerned in opening them. Again, the obstruction to the free passage of air through the upper pharynx may cause, as suggested by Bosworth, stagnation and a tendency to rarefaction of the air in the neighborhood of the orifices, and consequent hyperæmia and swelling of their lips and the walls of the tubes. Perhaps in some cases there is a direct extension of catarrhal inflammation from the pharynx down the tubes to the ears. Certainly acute inflammation and suppuration of the tympanum sometimes supervenes.

The symptoms vary in severity at different times, being often increased during damp weather, and always when the child takes cold. We should examine the upper pharynx in children who have frequent symptoms of rhinitis If the vegetations are found, the cause of the tendency to colds will often be found at the same time.

Hypertrophy of the faucial tonsils will often be seen in connection with that of the pharyngeal, but not always. We may have either without the other.

*Diagnosis.*—This can be definitely made by the use of the rhinoscopic mirror, or by the forefinger. The mirror can seldom be used in young children, and in such it is not difficult to pass the finger up behind the palate and feel for the growths. They would be felt by its tip and back, and the sensation is commonly much as if the vault were occupied by a mass of earthworms. If they are prominent a mistake could hardly be made. If less so, a few trials

soon give the educated touch which will distinguish the unnatural softness and yielding character of the membrane. Of course we have to guard against doing injury to the soft palate The nail should be short and blunt, unless the plan of using it as a natural operating instrument is adopted. The finger is often streaked with blood when withdrawn, but that is of no consequence, for a little bleeding on the slightest provocation is one of the characteristics of these growths.

*Treatment.*—The only treatment of any value is removal by surgical means. I do not mean to say that an operation should be done in all cases whenever any degree of hypertrophy is shown to be present. Personally I am always conservative on questions of operating, and am inclined to avoid it when the same end can be attained by other means. Nor is it forgotten that, as has been stated, the vegetations, as a rule, have a tendency to diminish at a certain age, but I wish to emphasize the point that whenever there is reason to believe that they are doing damage, we should not hesitate to operate. While we are waiting for the child to outgrow them irreparable damage may be done. A pale, inert and flabby-muscled child may, as the result of an operation, develop into a ruddy, strong and vigorous romp. A growing child needs the full and free use of his lungs and natural air-passages, and if he does not have it, it ought to be given to him. The operation can usually be done with such comparative ease, satisfaction and safety, that there is no excuse for neglecting it. In the worst cases there will be no difficulty in deciding, but it is also needed whenever there is any obstruction at all to easy breathing through the nose by day or night, when there is a chronic excessive secretion and troublesome hawking, when the voice is affected, and, above all, when there is impairment of hearing. When the last is caused by vegetations their removal and the systematic inflation of the ear by Politzer's bag may prevent a deafness which, if neglected, might last through life.

As intimated above, the finger-nail has been used successfully for taking away these growths, but it is not, I think, to be recommended. The different kinds and modifications of instruments that have been devised are perhaps as numerous as those who have written on the subject—some for use through the nose, some through the mouth. Ring knives, snares, forceps, opening laterally

and antero-posteriorly for crushing and for cutting, and curettes, and many varieties of all of them. Forceps have been most generally used, and I show a sample of one of the best, which is Hooper's modification of Löwenburg's. But by far the best instrument for ordinary use is the improved Gottstein's curette, which I have here, lately brought prominently before the profession by Dr. Frank E. Miller, of New York. The shaft curves slightly downward toward the end and terminates upward in a widely fenestrated, somewhat triangular curette of peculiar shape. This is set on at about a right angle and has a nearly straight cutting edge at the upper side, the edge being directed downward, and with a backward inclination, toward the middle of the triangle. It is introduced sideways and then turned upward along the posterior surface of the palate and the handle depressed so that the blade may be pushed upward and forward as far as possible, that is, to the junction of the septum with the vault. Pressure backward and downward is now quickly made and the growth is pressed into the opening of the curette and cut off. There is usually little bleeding and it always soon stops.

The mouth-gag will be needed in some cases, but this may often be dispensed with and the tongue depressor used alone. The instrument is sometimes a little difficult to introduce, but once behind the palate, the rest is easy. There is no trouble at all about removing it. It cuts more easily through the softer kinds of hypertrophy, but is successful in all. It is important to have an assistant hold the patient's hands at times, but if this is done and the head is measurably controlled, it is impossible to do damage with it. The uvula, soft palate, mouths of the Eustachian tubes and septum simply cannot be injured—and this cannot be said of any form of forceps. Moreover, the blade does not project beyond the blunt sides on which it is supported, so that it is impossible to cut off too much tissue and do violence to the deeper structures of the parts from which the adenoids are cut.

Some operators recommend that an anæsthetic be given and that an attempt be made to eradicate all the hypertrophied tissue wherever found. I believe, with others, that an anæsthetic is not necessary, certainly with Gottstein's curette, and that with that instrument all the tissue can be removed that need be. It is impracticable to remove all such tissue from all parts of the naso-pharynx

with any means, and if it were otherwise it would not be necessary. Enough may be accomplished at times by one introduction of this curette at one sitting; if not, it may be repeated, at the same operation or afterwards. We may be governed by the evidence of the mirror or finger, or by the effect produced on the symptoms. The after-treatment may be nothing at all or a simple alkaline antiseptic spray may be prescribed.

In conclusion, the advantages of this curette may be summed up as follows:

1. The comparative ease with which it can be used.
2. The impossibility of doing any injury with it.
3. The quickness of its action and the shortness of the operation, combined with sufficient thoroughness.
4. No anæsthetic is required.

# RECTAL PATHOLOGY.

By W. J. Jones, M.D., Goldsboro, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

*Mr. President and Gentlemen of the Medical Society of the State of North Carolina:*

In the Section of Surgery I have been given space for some reflections, with clinical data, embraced in the province of

## RECTAL PATHOLOGY.

The recognition of the dictum of Solomon, "that there is nothing new under the sun," and realizing that the vanguard of scientific research have penetrated and exploited nature's arcana to evolve germinal ideas which, when elaborated and materialized, have ever given new impulse and vigorous growth to scientific medicine, I am acutely conscious of my inability to do more than simply to invite your attention to, and emphasize the importance of, more thorough cultivation of this field of medical inquiry, which, I regret to say, has been lying comparatively fallow—when we consider its importance as a physiological factor in the complex problem of digestion and the amount of suffering when diseased. The rectum is perhaps more frequently diseased than any other portion of the alimentary canal or its correlated digestive viscera.

From the great number of affections to which this organ is subject I have selected one for your consideration with which you are clinically very familiar, but perhaps deem as quite insignificant. It is a disease prevalent among the barbaric as well as civilized peoples, and no condition of humanity, land or clime can claim immunity. It finds its victims among the devotees of science, literature and art, as among the army of hard toiling bread-winners—the latter not infrequently reduced to absolute penury—becoming pensioners upon Christian charity because of this infirmity. Yes, the sceptered monarch and humble peasant share alike the inevitable tortures of this disease—*Hemorrhoids.*

In professional endeavor to alleviate the sufferings of those afflicted with this very common malady by palliative and surgical

resources, I have been most favorably impressed with its amenability to operative interference, and hence the presentation of this paper to the Society.

Upon the most reliable statistical authority in this department of medicine, Dr. William Allingham, England, it has been discovered that of four thousand consecutive cases of rectal disease admitted into St. Mark's Hospital one-fifth were hemorrhoids.

Before investigating the pathological condition constituting piles and giving the different procedures in vogue for relief, I trust it will not be considered the work of supererogation if, for the sake of a clearer comprehension of the subject, I should give a brief résumé of some anatomical factors that are chiefly implicated in the production of these *Tumors*.

In the first place, we must regard this abnormal condition as attributable to undue tension in the vascular supply of the rectum and contiguous tissues. When dilatation of the arteries, veins or capillaries takes place from immediate or remote obstruction with the subsequent connective tissue development, we have lesion of the rectum known as hemorrhoids. Since the blood-vessels contribute so much to these pathological growths it becomes necessary to investigate the source of vascular supply and to note the fact that the anal division of the rectum has connection with the general venous system, while the first and second portions have direct communication with the portal system. It is true that we have a free anastomoses of arteries and veins in the anal region, and but for the sphincter muscles in this contractile function guarding the outlet, we could not trace the derangement of circulation to either system. Let it be remembered that the inosculations of the two systems are well marked at the classical white line of Hilton, the point of union of the rectal mucosa with the integument and also the small interspace that intervenes between the internal and external sphincter muscles. Upon the sphincteric contraction we are greatly dependent to distinguish in diagnoses the internal from an external hemorrhoidal nodule.

The legitimate deduction to be drawn from the anatomical facts set forth in the distribution of blood to the rectum would incline us to look to the portal system as a prolific remote etiological factor in the production of internal hemorrhoids. In this variety of hemorrhoids we must also look to the state of all the pelvic organs

which, by disease or mal-position, may be the cause of the obstruction of vessels and the varicose condition that must inevitably follow because of the valueless vessels and the abundance of loose areolar tissue in which they are embedded.

After the division of piles into internal and external, we find it necessary to extend the classification into a subdivision of each variety, as the construction of each nodule depends upon the preponderance of either blood-vessels or adventitious connective tissue. When the tumor consists chiefly of expanded capillaries, it is known as the capillary variety. When a venous pouch, miniature aneurism or phlebectasis occurs with hyperplasia of connective tissue element, we recognize a venous tumor.

Dr. Allingham stands sponsor for additional forms called the arterial, in which the arteries predominate. Each of these varieties possess well-marked features of distinction, so that little experience in rectal exploration is needed to differentiate them.

Assuming that physicians and surgeons are quite familiar with the caus tion and symptomatology of such a common affection as the piles and the value of time for this Society in the reading of other papers perhaps more important and interesting than this, I will omit the causes and symptoms that are so readily recognized, and proceed to notice as succinctly as possible the different methods of treatment.

Dr. Allingham enumerates eleven distinct operations for the relief of hemorrhoids, the merits and demerits of each I do not purpose to discuss in this hastily prepared and immatured paper.

The following methods of treatment have been formulated by Dr. Allingham :

1. Excission with knife or scissors.
2. Ecrasures of Chassaignac or the wire of Maisonneuve.
3. Application of various acids and caustic pastes.
4. Injection of carbolic acid or other astringent fluids into the body of pile.
5. Cauterization "Ponctuëe" of Demarquay.
6. Cauterization linear of Waillemeis.
7. Removal by galvanic cautery wire.
8. Removal by clamp and scissors—applying actual cautery to arrest hemorrhage
9. Dilatation of the sphincter muscles.

10. Removal by the screw crusher.

11. Ligature.

For a comprehensive description of the above operative procedures I would refer to the author, who has duly considered the *pros* and *cons* of each with regard to technique and practical results in treatment.

It would be presumption in one with limited clinical and operative experience to inveigh, even deferentially, against any method laid down by the master of surgery, whose clientele in metropolitan cities give ample opportunity for experimental knowledge in the various surgical procedures for the radical cure of hemorrhoids without any expectation to contribute additional information in their field of labor, I most respectfully submit a few reflections and deductions drawn from clinical data in the treatment of the disease under discussion. The consensus of opinion of both foreign and native surgeons in the election of operation for the relief of piles point to the ligature as the most satisfactory in result and simple in execution. The much revered and illustrious Gross and Van-Buren have both declared for ligation as free from danger and certain in its results. Such authority stands unimpeached, and hence the recognition and practice of the method throughout the enlightened medical world.

While I most heartily indorse this procedure and would not detract from its much vaunted superiority over other methods, I would yet vindicate the high estimate placed upon two other surgical resources that claim equal simplicity in adoption and safety in execution: I have reference to the eighth method as tabulated by Allingham, viz: Removal by clamp and scissors and the arrest of hemorrhage by the Pagnelin cautery, and also the fourth, the injection of carbolic acid or other astringent fluids—not into the bodies of the tumors, but into the connective tissue adjacent to the pedicle or bases of the tumors. The clamp process needs no defense. It has, as the ligature, by thorough trials and results, won the approval of all unbiased operators for radical cure of prolapsed hemorrhoids.

The injection method has been violently assailed and almost relegated to undeserved desuetude. Because of its easy application charlatans and empirics have armed themselves with hypodermatic syringe and acid and roamed over the country in great numbers professing to radically cure all varieties of piles with two or three

"shots," as it would be called in the Keely Institute parlance. In antagonizing this procedure we have the alleged dangers of embolism, pyæmia and peritonitis. In answer to this bill of indictment I would refer to Dr. Kelsy, of New York, who (notwithstanding recently he has become much less enthusiastic in the praise of this method) positively states that out of several hundred cases treated in this manner he did not have clinical data of failures or accidents upon which to base his change of method. Their recurrence after two or three years and the proneness of tumors to ulceration after being injected, influenced Kelsy in his change of procedure to the clamp and cautery, which he has chiefly practiced for the last few years. However, in an interview with Dr. Kelsy during a visit to New York in January last, he informed me that he had not entirely abandoned the treatment and that in some cases it answered better than any other procedure. In refutation of the plea of recurrence, I would state that all the methods are liable to this reappearance unless the entire pile area has been subjected to the method of some radical obliteration, and the only recognized operation that will effectively accomplish this ultimatum is what is known as the Whitehead resection method. The scope of this interference consists in dissecting up the mucous membrane with its varicose vessels and the nodules that may be discovered thereon for two or three inches and cut off the mass and bring the healthy or normal mucosa down and effect union with the integument by suture at the mucocutaneous white line. In this way only can I conceive how recurrent attacks can be prevented and at the same time avoid the complication of stricture of the rectum which would take place from cicatricial contraction by any other known method to destroy the hemorrhoidal territory.

In regard to the second objection, the "proneness of the tumors to ulceration, irrespective of the strength of the astringent fluid used," I would reply by calling attention to the fact that in the operations by ligation and cauterization you invariably have the same secondary condition in the effort by nature, through an inflammatory process, to throw off the foreign substance (the ligature) in one case and the (small sphacelus) in the cauterization method. I furthermore submit that, upon anatomical and pathological evidence, this much-dreaded ulceration of Dr. Kelsy's is but the logical result of traumatism in any part of the body where we have

sluggish circulation in consequence of varicosity of blood-vessels. The most trivial abrasion or contusion under such abnormal condition of the capillaries often lead to fearful phagadenic ulceration, and no relief can be found until the dilated vessels have been restored their normal calibre by the adoption of steady, uniform pressure, as in the use of the elastic stocking to relieve ulcers and varicose veins in the lower extremities. The anatomical reason is, the abundance of connective tissue in the sub-mucous coat of the rectum and the valveless veins channelled therein, ever subject to distention from manifold causes and conditions. To meet successfully these issues in opposition to the injection method, I would suggest that we simply imitate nature in the effort she institutes to relieve herself. By a subacute inflammatory process exudates are thrown out, connective tissue corpuscles proliferate until there is considerable induration, then contraction takes place, blood-vessels are obliterated and the original vascular growth now degenerates into a tumor decidedly fibrinous in character. Instead of injecting, as has been the custom of all practicing this method, the body of the pile, why not inject the irritant material employed as near the muscular tunic as practicable, as by so doing you avoid all the dangers arrayed against this surgical resource. It has been my practice to return the diseased and hypertrophied masses, when prolapsed, to their proper place and operate on them intact. My reason for the use of the fenestrated speculum and canulated needle is to avoid having the muscular and peritoneal coats brought by the procedenture of the hemorrhoidal nodules into dangerous proximity with the points of election for the procedure. We are cognizant of the presence of all the rectal coats in prolapse of the second form and appreciate the great caution necessary in the treatment of this condition. And when the hemorrhoid has attained sufficient size as to be an obstruction in the act of defecation, we find rectal tenesmus ensuing and a low form of proctitis set up, and after the relaxation of the sphincter muscles prolapse of the tumor takes place and with it the surrounding structures are brought down, including, it may be, the serous covering. In the treatment of piles in situ we endeavor to inject our irritant fluid so as not to penetrate the muscular or serous tunics, because by that event we would have either grave trouble set up in the ischio-rectal fossa or superior pelvi-rectal space of Richet by penetrating the muscular coat and peritonitis,

if still higher in the pelvic cavity. When the tumors are sessile we insinuate the needle in a parallel line so as to avoid the bulk or body of the hemorrhoid and leave the fluid as deep in the sub mucous membrane as possible, where the lymphatics are abundant and are ever ready as waste channels to take up and eliminate the atrophied mass after the necessary metabolic changes have taken place for absorption.

In order to obliterate the vascular element, one of the chief constituents of the hemorrhoidal tumor, we must by weak solutions of astringents induce and maintain this induration at the upper base or pedicle so as to cut off the blood supply. This being accomplished, nothing but the factors of time and metabolism are essential to effect its entire removal. And all this accomplished without either embolism, pyæmia or peritonitis.

This vindication of the injection process has been solely prompted by my excellent success in the practice of the method and the desire to see it hold an equal position among other recognized methods of relief.

I would also notice the insuperable opposition of some patients to other procedures, and that it also may occur that anæsthesia is contra-indicated by some cardiac or renal affection. Under these circumstances our patrons would be compelled to eke out a precarious existence in the most distressing manner but for resort to this safe and most available procedure. Admitting the correctness of Dr. Kelsy's experience in regard to this reappearance, after the injection process, would not the exemption from excruciating pains and constant discomfort, for two or three years, be an eloquent and pathetic appeal for the universal adoption of a surgical resource upon which the happiness of nearly one-fifth of the entire adult population may depend.

I would mention that in the capillary variety, in which we have no protrusion and little pain, but frequent losses of variable quantities of blood, the application of nitric acid (chemically pure) is most effective in arresting the bloody discharges as well as obliterating the congeries of arterioles and venules, with their intermediate capillaries, giving rise to this form of trouble.

The effects of loss of blood in this form of hemorrhoid not infrequently result in extreme anæmia, thereby furnishing a congenial

soil for the implantation of some grave disease or the development of some latent disorder into serious constitutional disturbance.

I have omitted till now to notice the external division of hemorrhoids, not because of their trivial nature as compared with the internal variety, but because of the general practitioners' greater familiarity with this form of rectal trouble. This is a condition in which the amount of suffering is quite disproportionate to the amount of lesion. The middle and inferior hemorrhoidal veins, with the folds of integument and the subjacent areolar tissue are the anatomical parts implicated in this form of tumor.

From the dilatation of the vessels or extravasation into the connective tissue we have produced the sanguineous tumor.

When by absorption or suppuration the venous tumor is relieved, we have remaining a redundancy of integument and subcutaneous connective tissue in the form of tubs. This condition constitutes the second form or variety of external piles. The intensity of suffering caused by these apparently insignificant tumors, when acutely inflamed, often perplex the doctor, so urgent is the appeal of the patient for relief. If there is an encapsulated coagulum the indication is to release the same promptly by free incision made in the direction of the radiated folds of the anal orifice and apply compress and T bandage if any undue capillary oozing should occur. The treatment for the cutaneous variety is quite simple in execution and generally followed by entire relief. These skin and connective tissue hypertrophies, called excrescences or condylomata, after being cocainized are readily removed by knife or scissors, the hemorrhage controlled by Ferri subsulphat. or the Paquelin cautery. The only precautions to be observed in this operation is not to make the cut too close to the anus for fear of producing an abnormal contraction at the anal outlet by cicatricial contraction.

In the conclusion of this paper I have subjoined the clinical history of a few typical cases which may attest the practical exemplification of the foregoing deductions with reference to the pathology and treatment of hemorrhoids.

Mr. M., aged 59, occupation farmer, came to me to be relieved of a malady from which he had suffered for twenty years and on several occasions was compelled to take his bed because of the loss of blood and pain. Any indiscretion in eating or drinking and the

unavoidable exposure to inclement weather would bring on an acute attack.

Upon inquiry the symptoms all pointed to the rectum as the *fons et origo* of not only the periodically intense pain to which he was subjected, but the source of his general ill-health. To thoroughly and satisfactorily diagnose the case an enema of tepid water was administered, and evacuation of the bowels and prolapse of the hemorrhoidal tumors secured, I at once proceeded with my investigation. Inspection revealed four large hemorrhoidal tumors and a portion of the mucous and sub-mucous structures. The prolapse was effected by comparatively slight expulsive effort because of the relaxed condition of the sphincters. The mucous membrane was pseudo-cutaneous in appearance from constant exposure and the friction of clothing. The color of tumors indicated their complex character and classification. The varicosity of the veins, with considerable development of the connective tissue, constituted the bulk of each tumor. The arterial supply was greatly diminished by the induration and contraction of the areolar tissue. The exudation had produced considerable hardness in consequence of the recurrent inflammatory attacks.

By taxis the tumors were reduced and further digital explorations made, but nothing additional was discovered. The rectal ampulla or pouch was so completely filled with these hypertrophied masses that there was scant room for the speculum in the operative interference. The patient had exhausted all palliative remedies and came at the instance of a friend for treatment. The condition of the hemorrhoidal enlargement imperatively demanded a surgical procedure. In my opinion the election of the method lay between ligation and removal by clamp and scissors, applying the Paquelin cautery to arrest hemorrhage. The patient most emphatically refused any and all operations save the one by injection. The same afternoon I gave him the first treatment by attacking only two of the nodules with the irritating fluids of carbolic and boracic acids, 12 per cent. solution of each in water and glycerine. The third day, patient presented himself for another treatment, and, upon the introduction of a speculum, I found the first two treated had greatly diminished in size and decidedly less vascular. I thereupon proceeded to assault the remaining two in a similar manner, and at the same time to reinject the bases of the first two the second time.

After six injections, at intervals of two or three days, my patient was sufficiently improved to return home and resume control of his farm. I would mention as subsidiary treatment that he was requested to keep his bowels soluble and to bathe the anal region night and morning with cold water.

Mr. M. has visited my office several times since and expresses much delight over his deliverance from an affection of twenty years duration.

*Case* 2.—Mr. B., aged 70 years; farmer by occupation; has had hemorrhoids for thirty years, acuteness of suffering and loss of blood, which frequently incapacitated him for any kind of work; presented himself for investigation and treatment. The initial enema having been given, his burden of suffering was promptly presented in the shape of two large dwarf tomattos, which the hemorrhoidal masses resembled very much. The anal outlet was festooned by a number of tabes, the sequalæ of previous attacks of external piles. This condition of the anal environment was not detected, of course, until the protuberant masses had been returned intact.

The patient had heard of the "painless and radical cure for piles," and at once assumed authority in the premises and dictated the method of procedure, which, of course, was the injection process, as the latter involved no operation of cutting or the use of an anæsthetic, chloroform or ether. This case of hemorrhoids was quite suitable for clamp-scissors and cautery or the ligature, but the patient being inflexible in his opposition, I proceeded to inject, as in the first case, but only one tumor at a time, because of the immense size of the masses After five or six injections of the carbolic acid, 12 per cent. solution, at intervals of two days, the nodules had greatly reduced in size and degenerated into a pulpy condition, and at the expiration of four weeks there was scarcely a vestige discoverable, and no bleeding or protrusion has taken place since.

Mr. B. has increased in weight and bids fair, in general health, to reach the date of an octogenarian.

*Case* 3.—Mr. G., aged 38; by occupation farmer; has been in bad health ten years from constant loss of blood whenever he evacuated the bowels; has never had any protrusion from the bowels to attract his attention; has never suffered any pain; the only symptom was the constant loss of blood at stool.

Mr. G. was extremely anæmic, very feeble indeed, shortness of breath on the slightest exertion, and had been unable to work for several months. Upon the introduction of the speculum I detected, high up in the cavity of the rectum, some small florid patches of raspberry-looking growths, which bleed upon the slightest touch. These plaques presented a granular or red velvety appearance characteristic of the capillary variety of hemorrhoids. I at once made an application of nitric acid to the entire bleeding surface after having first cleared the canal of at least two or three ounces of blood which escaped during the exploration.

Mr. G. remained under observation for two weeks and received in all only four treatments, and has been perfectly relieved of all troubles and is now in the enjoyment of excellent health.

Gentlemen of the Society, trusting that this communication may not have been uninteresting, and that your patience has not been sorely taxed, I must extend thanks for your respectful audience.

# OUR PINE FORESTS AS FACTORS OF HEALTH.

By S. S. Satchwell, A.M., M.D.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

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The eastern counties of our State present an inviting field of medical research and investigation. Comprising a vast extent of territory, a variety of climate and atmosphere, many species of the vegetable and mineral kingdom, they are covered by fertile fields, rich swamps, extensive plancs and large forests of pine trees. This vast extent of territory contains one and at the same time the elements which produce pain, disease and death, and the remedies by which they are relieved and subverted. That wonderful divine, Henry Ward Beecher, said that "among the roots and herbs to be found in nearly every grave-yard there is a remedy, if only ascertained, which would have relieved over half the victims who were laid to rest in death's embrace beneath is green sod." Without commenting on this striking proposition, there are reasons for the opinion that our grand and productive State, in her eastern and western boundaries, contains elements which are susceptible of being made remedies for nearly all the diseases to which our people are liable As we cast our eyes over our eastern boundaries there is much that is peculiar and of special interest to the medical observer. As the mysterious volume of nature is opened to us with the laws of health and life written upon its ample pages, we behold, on the one hand, great atmospheric changes between the east and west, the exhilarating properties of our ocean breezes, the moisture of our atmosphere, particularly near the coast, interfering with the functions of the skin and demanding the compensating action of the liver and lung; and, on the other hand, are found, upon our planes, along our streams and in our forests and fertile fields, in rich abundance, the finest specimens of beautiful flowers, medicinal roots and herbs, that adorn the vegetable kingdom, constantly adding to the wealth of the materia medica and to the usefulness of medical science.

Eastern North Carolina can be complimented and congratulated not alone upon her great natural advantages and magnificent resources of minerals, water-power, wealth of climate, lands, forests

and adaptation to commerce, manufactures, horticulture and agriculture, but in the way of sanitation, drinking water, amount of disease, bills of mortality and the general health of our people, we are making great improvement, and may challenge comparison with any portion of our noble old State. Would that I could impress upon every North Carolinian the vast benefit that has accrued to the public health and the public wealth of a *procedure*, potent, talismanic, destructive to disease and efficient to remove causes of disease in all our malarious localities and destined to reduce still more, with the advancing years, the death-rate in all these eastern counties and cities. That procedure is thorough drainage. Large tracts of land, from time immemorial hot-beds of malaria and the home of disease and pestilence, have become, by this agency alone, the abodes of health, comfort and happiness. Every year do we see effectual drainage routing this fell-destroyer of our race from his old accustomed haunts and dislodging him from his strong entrenchments in the east, until it stands out as a beacon truth in the light of sanitary science that malarious diseases, in their numerous phases and changing aspects, are passing away as the years roll on.

But these diseases and their varying complications and grades are not destitute of interest still to the physician, as the changing seasons of wet or dry, cool or hot, and other atmospheric varieties, render different communities more or less sickly. Malaria still abounds in different places as the conditions are favorable to its production, now manifesting itself in one form and then in another—sometimes intercurrent with some other disease more or less marking its features, and then assuming the shape of another malady, not always easy to diagnose and cure. It still prevails extensively, finding victims in every direction, and in every favoring locality visiting its effects upon our patients and ourselves. This invisible, *imponderable*, and yet positive agent of disease, is borne still, as in ages past, upon the wings of the morning breeze, the evening mists and the nightly vapors entangle it in their meshes, and the fragrant odors of spring are treacherous with its poison.

My main object, however, in this paper, is to present the merits and claims for health, in other respects, of a very large portion—more than one-half, perhaps, of the east—in the beneficence of nature alone. I allude to the antiseptic, hygienic and preventive

properties of our eastern pine tree, or the exemption of our pine forests from consumption, malaria and germ diseases. For more than three decades I have been continuously engaged in laborious country practice in our eastern counties, comprising every variety of malarious locality, whether productive of the milder forms of intermittent and remittent fevers or of the higher grades of malarial fevers as seen in severe congestions and hemorrhagic malarial fever. I have also practiced extensively during all this time upon the pine ridges and in the pine forests of numerous of these eastern counties, especially east of the Wilmington and Weldon Railroad and between Virginia and South Carolina. I have to record as the result of a long and arduous practice, based upon my observation and experience, that, while malarial diseases and their complications with other diseases are peculiar and indigenous to malarious localities, sandy regions, abounding in pine forests, are exempt from malaria, from the production of consumption, diphtheria, puerperal fever and diseases of almost every class that are due to bacterial infection. I do not say that consumption and diseases of germ origin do not occur at all where pine forests abound, but my experience is that they are of very rare occurrence.

Look at the tall pine tree of our eastern planes and sandy soil with its absorbent powers. Its tall, columnar trunk offers less mechanical obstacle to the passage of air, and a smooth surface for the concentration of dews and vapors than any other tree of the woods. But it seems gifted with singular salubrious powers, and imbued with healing virtues and antiseptic properties in every bough. Every tree of the forest circulates, secretes and eliminates, so long as alive, its specific and peculiar effluvia. The pine has its azone. Though no chemical analysis has been made of its exhalations, it is reasonable to conclude that they may possess certain unseen virtues, specific chemical properties and affinities which may enable them to mitigate, neutralize, decompose or render inert malaria, the bacillus of consumption and the micro-organisms of other diseases.

Physicians and laymen alike contend for the hygienic and health-preserving properties of the piney woods of our eastern counties and of the piney sections of our Atlantic slope. They ascribe to the presence of our piney forests the proverbial and remarkable exemption of the inhabitants of this vast extent of territory from

malarious diseases, from consumption, from puerperal fever, from continued fevers, diphtheria and other diseases originating from the presence of germs. The fact that piney regions of country are healthy is proverbial and traditional—established beyond cavil or dispute.

It is true that good drinking-water is almost always found in piney lands, and this may have some causative action in producing the healthfulness of our piney sections. It is true that the soil of pine forests is generally sandy and its capacity and powers to absorb not alone malaria, but bacterial germs, as they float in the air, may have some relation to this healthfulness. But that, above and beyond all this, there is a *something* in the pine tree that is antidotal to malarial poison, antagonistic and hostile to the causes of other fevers, to puerperal fever, to diphtheria, to septic infection and blood-poisoning, and germ disease generally, is a well-established truth of observation and experience.

Although these sanitary facts as to the pine tree are treated with strange indifference and neglect, both by the medical and non-medical public, the subject is by no means new, illustrating that when we look into the history of almost any subject how little there is new in its facts and its phenomena. What is new consists in our manner of regarding them, our comprehension and application of them.

The pine and its preparations have been long regarded as hygienic and curative, but as especially remedial in the antiseptic treatment of pulmonary diseases. The adoption and success of antiseptic methods of treatment of pulmonary affections have been recorded again and again, and as often have met with opposition, because the treatment has often been held to be empirical. But long experience and faithful investigations have reduced it to a more scientific basis. The antiquity of the fact of the antiseptic treatment of pulmonary disease in the way of tar vapors dates back to the days of Hippocrates and Galen. Galen advised consumptive patients to settle in the vicinity of Vesuvius and Ætna, and to inhale sulphurous and tar vapors and sea air. It is a noticeable fact in the history of pulmonary therapeutics in the last hundred years of the frequency with which tar vapor has been advocated as of great value in the treatment of lung disease. Dr. Rush, of Philadelphia, in 1787, Dr. Beddoes, of England, about the same time, and Sir

Alexander Chrichton, about the same time, all stated that they had met with great success in treating consumption by the inhalation of the vapor of boiling tar Since the time of Hippocrates and Galen other illustrious physicians, Skoda and others have used the inhalations of the vapor of tar and turpentine with much success in phthisis, pulmonary gangrene, and in bronchial troubles and catarrhal affections of the air-passages. Its application has often failed because of the useless attempt to test any method of treatment in cases of advanced phthisis. No line of treatment will be effective in causing suppurating cavities to close up and heal, or is competent to replace lung tissue that has been destroyed by progres sive ulceration and disintegration. Hundreds of cases of consumption are daily coming before us already in this State. That is why so many advanced cases die who go for relief to the piney lands of Florida and other States.

Coming down along the line of enquiry from the days when Rush and Skoda and the earlier physicians and the vapor of tar and turpentine as remedies, to more recent times, let us see if experience now teaches that pine forests and preparations and extracts from the pine tree have an influence in sterilizing and destroying and neutralizing miasmatic emanations, germs and microbes. Wherever a turpentine still is in active operation we find an agency at work which is inimical to miasm and to living germs and microbes. Localities and places sickly previous to the erection and operation of one or more turpentine stills have been subjected to such atmospheric changes and sanitary improvement as to become healthy. When the turpentine stills have ceased to be used the former unhealthiness of the localities have generally returned, favoring the belief that the process of distillation of the spirits from the crude turpentine is sanitary. Likewise persons of weak lungs who habitually work around, and in immediate proximity to, turpentine stills while this distillation is going on, generally improve in their pulmonary troubles and in their general health.

We learn by observation of the health-giving properties of the pine tree as it abounds in the sandy regions of the Atlantic slope of North and South Carolina. The inhabitants are taught by experience that if they remain during the warm season upon the sounds, bays, creeks, rivers and other low places that are liable to malaria and zymotic causes of disease, they are apt to be sickly.

As a consequence we find them inclined to remove during the sickly season to the higher regions of the pine, and that in so doing they are generally exempt from malarial and typhoid diseases and affections caused by micro-organims. Farmers and others who reside near the coast of our own State and that of South Carolina are familiar with these significant facts and profit by them when they are able to do so. The intelligent farmer who clears his swamp land and cultivates his low-land farm knows that he is in danger of sickness if he constructs his dwelling in the same place and inhabits it, and hence he chooses some elevated pine ridges as his residence, with the air and drinking-water purified with the emanations from the surrounding pines. The great work of sanitary progress in the way of better drinking-water, more efficient drainage and purer air that is going on in our State, is steadily *preventing preventable* causes of disease and lessening our bills of mortality.

It deserves to be repeated, with emphasis, that in the piney belts of North and South Carolina diphtheria, typhoid and malarial fever, puerperal fever, and the whole class of zymotic diseases are extremely rare. I cannot say positively that the peculiar exemption of these extensive piney belts from these diseases, including consumption, is due to the pine tree, but it is a fact beyond dispute that where the turpentine tree is abundant certain classes of diseases, such as consumption, malarial disease, diphtheria, puerperal fever and other affections due to bacterial infection or to the presence of germs and microbes, are of very rare occurrence. Why this is so remains to be discovered by the investigations of some scientific germs. As to the remedial effects of turpentine in diseases of the class mentioned by our experience and that of every observant physician will bear testimony to its admirable action. Its daily increased use by the profession in this class of diseases everywhere, and its traditional use for ages, both internally and externally, bear strong testimony of its worth. For external use for cuts and wounds I know of no remedy its equal. I have often seen the fresh gum from the turpentine boxes applied to cuts and always with the happiest results. The application of the strong spirits to the diphtheritic throat destroys the membrane as I have never seen it done by any other application. Whether its beneficial action, administered externally or internally, does not depend upon its adaptation and power to sterilize and destroy bacterial germs and

living organisms, as they exist in cuts and wounds, and upon internal surfaces when typhoid fever assails a patient, for example, or the poison of miasm sets up bilious fever in the system, may well be a matter of enquiry.

Another peculiarity of the piney belts is their exemption from the septic poisoning, gangrene and erysipelas, of wounds and surgical operations. During my professional life I have frequently been called upon to perform important and unimportant surgical operations, as my country practice has extended to piney woods sections. In no operation that I have performed in the piney woods, or amputation, or wound that I have treated in a piney belt, have I had to combat pyæmia, septicæmia, erysipelas or gangrene. The purity of the air of the piney belts seems to favor surgical treatment in every respect. If city hospitals, infirmaries, alms-houses and other places for the treatment of medical and surgical cases could be changed from cities and towns and other localities where the air is not good to the antiseptic influences of pure air and piney communities, they could be managed more successfully and with less mortality. My observation and experience as a surgeon during the late war, in charge of a hospital most of the time averaging from three to four hundred sick Confederate soldiers, gave me valuable lessons and impressive memories all along this line.

It may be well just here to remark that outside of our piney sections nearly all of our diseases are more or less malarious the year round, and are disposed to be periodical, demanding quinine. For several years we have had less of malarial disease and more of typhoid, though the typhoid fever of the east does not seem to prevail so extensively as it does in the west, and is of a milder and less fatal form. It deserves to be remembered that in our eastern counties and towns we sometimes have, in the same case of sickness, two different poisons and causes of disease operating at the same time. In all such cases this coexistence seems to modify the action of each, produces a milder type of fever and a variety of treatment to correspond with the periodicity and other characteristics of each particular case.

And now let us briefly apply the statements, views and reasoning of this paper to the great practical and important question of the health and the resources of health of eastern North Carolina.

Looking, in the first place, at the malarious localities of the east,

we find that malaria has been steadily but surely giving up its intrenchments and strongholds for a number of years, under the influences of drainage and other sanitary measures. With this disappearance of malaria and of the causes of typhoid fever as well, under the operation of preventable and removable means antagonistic and destructive, too, of typhoid poison, there has been gradually going on in the east less and less of malarial and typhoid fever. So that, in relation to these diseases alone, the public health in eastern North Carolina has greatly improved and is steadily improving. With the system of sanitation now at work in all our eastern towns, counties and cities, there is every reason to believe that the whole family of malarious and typhoid fever will steadily decrease and will be eventually unknown. But be it remembered that a very large portion of the east abounds in pine trees and is covered by the piney belts, that are remarkably exempt from disease. The piney sections embrace a large portion of the east from the coast to near Raleigh and Fayetteville, and higher up, and from Virginia to South Carolina. Within this vast area of piney land it is likely that there exists *one-half* or *two-thirds* of eastern North Carolina. It is held to be almost wholly exempt from malarial and typhoid causes of disease, from diphtheria and zymotic diseases and other affections arising from germs and microbes, upon the ground that these diseases do not find a congenial home in our pine forests. If the observations and experience of physicians and laymen all along these lines are to be regarded, there is no portion of North Carolina more healthy than the east. Our statistics of health, longevity and bills of mortality will sustain this view. And yet in this important relation great injustice and very great wrong has been done the east, with its fertile lands, magnificent forests, abundance of mineral resources and wealth of climate. It is time that truth should prevail, that erroneous views should be corrected in regard to the great attractions and unrevealed advantages of the east. Laborers and men of skill and capital in other States and across the ocean, seeking new and healthier homes with more inviting fields of enterprize and investment, have long been deceived and blinded by misapprehensions and false statements bearing upon these grave interests. The incontrovertible truth has been suppressed and withheld from other States and other countries that no healthier homes can be found than throughout eastern North

Carolina, and no portion of earth where the soil is more generous and where nature has been more bountiful and magnificent in all those gifts which contribute most to the comfort, prosperity and happiness of man.

But certain causes have operated against the development and utilization and appreciation of our health benefits and other great things which kind and generous nature has done for our eastern people—one is the great objection of capital to invest where the negro ignorant vote is oveswhelming and where taxation is at the disposal of ignorant suffrage. And here is an argument for popular education strong, binding, invincible and paramount. Another is the wide-spread misapprehension which exists in regard to our sanitary condition, our drinking-water, our climate and other health benefits. As already said, the observation and experience of physicians who have practiced in our reclaimed and well-drained swamp lands and piney belts will bear out the statement that, even admitting the presence of malaria, typhoid fever causes, and zymotic diseases in these localities, they are less severe in form, far more amenable to treatment and less fatal than in the hilly and mountainous regions of our State. That while it is the boast that the higher altitudes of the west produce specimens of more robust physical stamina, medical observation and experience justify the statement that in the matter of health and longevity the east will compare favorably, not alone with the west, but with almost any part of the American continent. It is not unlikely that climatic changes in the east have been going on for a number of years that have combined with other causes in improving its sanitation and in rendering the entire east more salubrious. The existence of a semi-tropical climate along our North Carolina coast, embracing pine forests, at the mouth (extended) of the Cape Fear river, as shown by the thermometer and vegetable growths, recommends this section eminently for health and as suitable for a sanitarium, as higher altitudes, especially for pulmonary complaints.

One great obstacle to development and progress in the east is the failure of our own people to appreciate our soil and climate and to place a just estimate upon the precious gifts and manifold blessings which nature has so richly spread before us, including that of health. Where nature has done the most for man, there man has done the least for himself. The proverbial ignorance and indolence

of our people renders them insensible to enterprise, dormant and indifferent to immigration of capital and suitable labor. We lay supinely upon our backs and wait, in contentment, for others from abroad to stimulate us to effort, and to come and tell us what to do and how to do it. Our hope is in the infusion of new blood and better methods that will reclaim our farms, utilize our forests, erect more manufactures, build up schools, churches, towns and cities, people our railroads.

DISCUSSION.

Dr. Haigh thought it was his duty to bear witness to some of the facts brought out in the paper. We have all along the line of this country been too quiet and entirely too modest in regard to the health-giving properties of our climate. All through this middle country of eastern North Carolina, where in years past malaria existed so extensively, the change has been simply marvelous. He spoke of the severity and fatality of the bilious fevers that were so common at the time he began to practice medicine, about forty years ago, saying they were nearly as malignant in some cases as yellow fever. Now it is a rare thing to have bilious fever. We have the mild forms of intermittent fever and what he calls intestinal fevers, for they rarely reach the type of typhoid. He said our climate is inviting to those seeking health. He was glad the Doctor brought forth the virtues of the pine. It is especially useful in irritation of the mucous membrane of the bowels. During the war he had to depend upon it to a very large extent, using it both externally and internally in mucilaginous drinks, and since then some of his worst forms of low fevers have been entirely relieved by the use of oil of turpentine. There is one point on which greater stress should be laid—it is the system of drainage in the eastern part of the State, which has greatly improved. For a long time the people of the hill country have been afraid to come to the low country for fear of having fever, while we think it is sometimes more dangerous to go to the high country. He thinks we have as healthy a country as any part of the State; we are more free from violent disease. We ought not longer to allow the stigma under which we have rested so long. He was not prepared to endorse what the Doctor said in regard to diphtheria. He does not fully understand the nature of the disease nor what causes it

He does know that in certain regions where there was no manner of filth, where everything was as clean as possible and the water perfectly pure and the air was filled with the perfume of the pine, he has seen some of the worst cases of diphtheria he ever encountered. He has never been able to satisfy himself that it is a filth disease; as other diseases, it is possibly intensified by the surroundings as found in large cities.

Dr. Potter thought he could give some practical demonstrations of the healthfulness of the pine forest. Anterior to the late war the farmers living near the water courses were in the habit of moving up into the higher pine regions on the approach of summer, and they rarely suffered from malaria. He cited the case of a man who thought he might do just as well if he remained in his winter home in the low-lands. He tried it for two summers, and during those two years lost three of his family. He thought we seldom have a genuine case of typhoid fever He has seen diphtheria in the highest pine regions where he could see no cause for it, but where the diseases seemed almost to originate *de novo*. He mentioned an epidemic that started in the barracks in a small town where he was in charge as surgeon. On searching for the cause he found under one of the platforms connected with the building a reeking cess-pool. As soon as this was cleaned there were no more cases of the disease. This outbreak seemed to have a cause in this cess-pool.

# A REVIEW OF THE PATHOLOGY OF DIPHTHERIA WITH SPECIAL REFERENCE TO A NEW METHOD OF TREATMENT BASED UPON THE PAST THREE YEAR'S EXPERIENCE OF ITS REMEDIAL VALUE IN TWENTY-FIVE CASES.

By Dr. Martindale, New York.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

According to Oertel diphtheria is one of the oldest epidemic diseases of the human race, it being claimed by Aratæus to have originated in Egypt and Syria, whence its name, "Malum Egypticum,"* supposed to have been conferred upon it by Hippocrates, who was, presumably, more thoroughly conversant with its general pathological characteristics than any of his compeers of that early period. In reality, however, diphtheria was but little known, as an infectious disease, until Bretonneau† laid his treatise upon its essential characteristics of an exudation in the throat before the Academy of Medicine of France in 1821.

The area of pathological investigation widening under the stimulus of individual effort of a number of German, French and English scientists of that period, we finally come to the more recent clinical observations of Virchow,‡ who first directed attention to the occurrence, in diphtheritic inflammation, of an exudation into the substance of the mucous membrane, followed by sloughing.

This constituted, in fact, the first important step in advance in determining the true pathological conditions underlying systemic poisoning in this disease. It has, however, only been since a comparatively recent period that the true pathological constituents of diphtheria were determined by Hueter§ and Oertel¶ in the discovery, in great numbers, of vegetable organisms, to which Oertel gave the name of micrococci. Certain it is, that in this country, at that time, very little was known of the peculiar infective ten-

*Ziemssen ; Vol 1, p. 575.

†Des inflammations et de la diphtherite. Paris, 1826.

‡Virchow's Archives, 2, 4 ; p 550. 1870.

§Hueter and Tomassi, *Centralb.*, 1868 ; pp. 31-34.

¶Oertel, Studiere uber Dipthe., *Auff'll Int.*, 1865.

dencies of this local exudation, in the direction of general sepsis, prior to 1850, for a very distinct remembrance comes to the writer of his having been treated in 1840 by the family physician at his native place for an attack of what was then termed putrid sore-throat, and of his having had his throat swabbed at intervals with a solution of salt, vinegar and red pepper, then regarded as the *ne plus ultra* of remedies for this special type of local sepsis, and it will be proper here to note the fact that the disease attacked him in the early spring and that the cellar of the paternal residence was, during the winter, chiefly utilized for the storage of potatoes, being unventilated and without light, by reason of embankments around the foundations outside for protection from frost; that this recaptacle was usually flooded at the spring freshet, sometimes before that farm products had been entirely disposed of, when some three feet of water were contained therein, its depth having been governed by the quantity of snow remaining at the spring equinox, which leads to the consideration of a point of some interest in this connection, involving the chief characterics of the vegetable germ "Peronospora Infectans" claimed to possess such persistence of vitality as to be capable of "resisting the heaviest frosts of winter and greatest heat of summer," its habitat and feeding ground being the potatoe, of universal consumption among all classes and invariably stored, in country localities in the old-time house cellar, undrained or lighted as also unventilated, is not, in fact, the efficient* *materia morbi* of every diphtheritic exudation as also the micrococcus, Oertel claims as constituting that disease. Three cases in a well-to-do farmer's family of Richmond county, New York, under my personal observation, seeming to sustain this view; the chimney from the cellar, in which a large quantity of potatoes was stored, affording draft to the heater in the room where the children slept, it being impossible to assign other cause for the outbreak. The proprietor, a man of sound judgment, upon its being suggested to him, constructed a potato cellar in a lot adjoining, and has had no occasion since for any medical services in connection with that special type of septic disease.

As to the local characteristics of the exudation, it is first found in the form of a small white or yellowish white spot on the tonsil,

*Ziemssen; Vol. 1, p. 579.

uvula or posterior pharyngeal wall, which soon becomes the focus of a general infection unless prompt efforts are inaugurated for the thorough annihilation of the rapidly multiplying germs.

From the foregoing it may therefore be assumed that diphtheria is always, at first, a local disease, becoming, by multiplication of germs and enlargement of area by infection, general in its character, ranging anywhere between simple excitement of the circulating system and the gravest forms of systemic and pyæmic poisoning.

A third class of symptoms, following those of a febrile character, are such as involve the muscular system, ranging from a local paralysis to a general ataxia. Another of its peculiar features is its invariable selection of the air-passages, the destructive changes involved being wholly due to the favorable conditions found therein for the propagation and dissemination, through the circulatory system, of its specific germs, this pathological fact having been determined by Oertel,* through a series of inoculations of animals made in conjunction with Hueter,† Trendelenburg and Nassiloff, for this specific purpose.

Without, therefore, entering upon a more extended analysis of the etiology of the morbific processes involved in systemic poisoning by the class of vegetable germs termed micrococci, it will be enough for our purpose to have called your attention to the fact of their being engrafted, with such wonderful rapidity at different points of the air-passages as to establish, within a remarkably short period of time, profound systemic poisoning from a circumscribed local infection, a fact fully established, experimentally, by Nassiloff and others.

Your attention is also directed to two other peculiar features of this disease, the first being its more general prevalence in winter, the second its apparent selection of children preferably to adults. Statistics gathered by Widmer‡ show the maximum of mortality from diphtheria to be from September to December, and its minimum from April to August, and present a reasonable estimate of its general prevalence in the several months of its selection during the year, special regard being had for local conditions of drainage and

*Ziemssen; Vol. 1. p 577.

†Nassiloff uber das Wesender Diph.

‡Widmer, Statistician; Munchiden Epidemics, January, '64–'69.

water-supply, constituting, as there is every reason to believe they do, the chief etiological factors of all epidemics of which we have any reliable reports, it being a well-known fact that house-drains are generally more obstructed in winter than in summer. Why children between the ages of two and six years are, as a rule, more susceptible to diphtheritic infection than infants or adults, there are sound reasons for the belief that this characteristic is chiefly due to the fact that their imaginative perceptions are much more prominent than their reasoning faculties; children are always delving in unsavory localities in search of hidden treasures, and they are sure to be the first discoverers of any septic conditions prevailing about the family homestead. Hundreds of infantile lives have been sacrificed by just such apparently insignificant causes, especially in country localitses.

In view, then, of the facts established by Oertel and Nassiloff,* in Germany, Leloir,† in France, and Burden‡ and Sanderson,§ and others in England, that diphtheria is really an infiltration of living tissues with the vegetable germs termed micrococci, and that their prompt destruction is a *sine qua non* to the safety of the individual, we are confronted with the problem of how these septic germs are to be rendered harmless without injury to the infected mucous and sub-mucous tissues of the pharyngeal and naso-pharyngeal walls; it becomes clear that the remedy best calculated to rid the system of these septic germs will be an atmosphere so harmless to the respiratory organs and yet so saturated with a germicide that, while it promptly destroys the rapidly propagating germs, resolving them into asepticized and absolutely inert matter, enables it to be conveyed, harmlessly, through the intestinal canal without injury to patient or attendants, or the possibility of future infection.

The larynx being implicated, as is not infrequently the case, the aphonia resulting from the organization of false membranes on the vocal chords is always a prompt and reliable notification of the fact, and the only remedy that has proven effective for their prompt resolution, has been a germicidal atmosphere that alone could reach the seat of aseptic exudation, search out and resolve the morbific elements threatening the life of childhood.

*Studien uber Diptherie, 1868.
†Uber das Wesen deright.
‡Virchow's Archives; Vol. 54, pp. 1–25 and 254, 1871.
§Recherches Cliniques sur les Affections pseudo-Dipth.

It will be unnecessary to refer to the ordinary prodromæ of an attack of diphtheria, nor need there be more than merely cited the usual methods of treatment.

First, and most prominent, have been gargles of various combinations of antiseptics, with the administration, internally, of remedies of the same character, notably that of Prof. Fordyce Barker, a most admirable one, as I can testify to; in later years the former have been displaced by sprays of various germicidal solutions, and more particularly the application of super-heated vapor to the degrees of °113 to °122 F.,* with the view to the establishment of an abundant suppuration, with detachment of the membrane, as rapidly as possible. This method was in the right direction, and to a degree efficacious, but it did not fulfil the germicidal purpose demanded for the effective stamping out of the disease.

Such of you as have attempted to treat children with aseptic sprays and gargles will recognize the fact that the accomplishment of any favorable results in the graver class of such cases is practically impossible.

Your attention is now invited to the consideration of a special method of treatment of all cases of diphtheria, in children under six years, specially, and of adults likewise, optionally, adopted by the writer within the past three years, that it is to be hoped may commend itself to the judgment, if not the experience, of members of the profession in the "Old Tar State" with equally satisfactory results for the future as have accrued to him in the past three years in twenty-five cases, in three of which the exudation extended to the larynx, in one to the tympanum, and in four to the naso-pharyngeal cavities—one having reached the stage of general systemic poisoning before consultation was had being the only death out of that number.

As may be inferred from the pathological changes occurring in the naso-pharyngeal mucous membrane from an extension of the diphtheritic process thereto, or into the larynx and trachea, the possibility of combating effectively the destructive metamorphosis of mucous and sub-mucous tissues by gargles and aseptic sprays becomes an exceedingly limited one, especially as regards children, hence the comparatively large mortality in that class of cases;

*Ziemssen; Vol. 1, p 675.

under four years of age, in fact, even in much older subjects, systemic poisoning results from our inability to counteract the necrotic process that is steadily and actively progressing beyond the limit of our capacity to determine.

It is clear, therefore, if it is our purpose to relegate diphtheria to the class of so-called benign diseases, that some method of treatment must be adopted that shall act positively and effectively as an antiseptic over and throughout the laryngeal and naso-pharyngeal cavities. Such a process must involve the saturation of the atmosphere of the sick-room or ward with a powerfully aseptic vapor that shall prove so positively non-irritant to the air-passages as that it may be maintained continuously or for an indefinite period, until the disease has been thoroughly eradicated and systemic poisoning averted. It is in the writer's experience already established that such a method of treatment can be effectively utilized through the combined vapors of tar and turpentine, under certain limitations, as to the number of cubic feet of air space and the degree of atmospheric saturation to which the patient should be subjected, consideration being had also in respect of the severity of the attack, a marked tendency to sepsis demanding a higher degree of saturation and *vice versa*.

This plan of treatment was first utilized in this disease by the writer some three years since, his attention having been directed to its efficacy, as applied, during the stage of softening, in pulmonary tuberculosis, and it affords him profound satisfaction to be able to state here that all cases of diphtheria treated by this method from their inception to the number of twenty-five, with one exception, recovered completely within five to twelve days, and that without subjective complications.

Of the single case to which he was called as consultant on the sixth day after the inception of the disease, treatment by this method being then adopted, proved unavailing, systemic poisoning having already supervened, and its application having also been ineffective by reason of lack of discipline on the part of the nurse, who proved inefficient in fulfilling the duties intrusted to her.

The cases referred to were all well marked, false membrane covering the tonsils and posterior and naso-pharyngeal cavities, and in one invading the larynx and vocal chords, this having fallen into the writer's hands through the failure of the family physician to

reach a diagnosis. Examination afforded little hope of averting a fatal issue, the tonsils, posterior pharyngeal and palatal mucous membranes being covered with a dirty greyish brown coating of false membranes and a pronounced hoarseness, giving evidence of laryngeal invasion, in fact, a minor degree of systemic poisoning had already ensued accompanied by a moderate degree of dyspnœa.

Vaporization of the sick-room was at once inaugurated to the highest degree, 105°, and a thoroughly qualified nurse placed in charge with orders to maintain it at that standard until otherwise notified. Personal experience, I recall, impressed me with the fact that more than ordinary resolution was demanded to remain in the sick-room the half-hour usually devoted to the case, the degree of atmospheric saturation being much more appreciable to anyone entering it from the cooler air without. Nurses in constant attendance on these cases, however, acquire a degree of tolerance that to the medical attendant or visitor (for visitors can be freely admitted under this method with absolute impunity), partakes of the marvelous, and yet, in all his experience with this potent remedy, there has never been found a child patient that made the slighest complaint, and there were a number subjected to its influence from five to seven days continuously.

From further observation of the therapeusis of this method of treatment it has been determined that within twenty-four hours the dark greyish exudation on the tonsils or posterior pharyngeal wall becomes loosened at its border and contracts gradually, a slow suppurative process having been established in the sub-mucous tissues. The degree of atmospheric saturation having ranged between 105° and 103° F. should, when the membrane has been detached, be gradually reduced to 100°, the chief point to be had in view being a saturation of the local atmosphere to such degree only as may be requisite to the attainment of the desired results, no higher temperature than 105° being required to secure the prompt and effective removal of any diphtheritic exudation from any of the air-passages by the method thus determined.

In the case referred to the hoarse, stridulant cough remained as a somewhat threatening symptom for several days, otherwise the patient brightened up, the gradually falling temperature giving evidence of a positive gain in the contest for life. On the fourth day all the sloughs had disappeared, leaving healthy granulating

surfaces in their stead. The probabilities of recovery were increasing and the parent's hearts were throbbing with renewed hope, when some pain in the right ear, accompanied with a moderate degree of deafness, caused uneasiness. It must be stated here that Dr. Barker's prescription of iron, quinine and potass chlor. have been administered persistently since the inauguration of the treatment.

At the beginning of the second week the croupous cough had disappeared, the only permanent disability resulting from the disease, apparent, being the deafness of the right ear due to the extension of the morbific process to the tympanum *via* the Eustachian tube. The child, having scarcely recovered from this unusually severe attack of diphtheria, shortly after succumbed to one of rubeola, which more seriously aggravated the tympanic congestion, for the relief of which the parents were recommended to consult an aurist. This child is to-day in the best of health after one of the most severe attacks of diphtheria it has been the writer's lot to be called upon to treat, and to him it seems there can be no question that the combined vapors of boiling tar and turpentine were the effective agencies in the destruction of the diphtheritic germs in this case. This was the most severe of twenty-five cases treated by this method, with one exception, to which the writer was called in consultation on the sixth day of the disease, the patient, a boy five years of age, laboring under profound systemic poisoning, dying, two days after being subjected to the treatment, the latter having been employed only as a *dernier ressort*. It is but right, however, to state that the failure in this case was largely due to the mother, who, in spite of the nurses' protestations, would persist in lowering the upper window-sash "for fresh air" on each successive night of treatment, with the result of counteracting the best efforts of the medical attendants and securing the death of her son by heart-failure.

From the writer's experience the treatment of diphtheria and scarlet fever complicated with diphtheritic exudation, in the throat or elsewhere, by this method, will certainly afford to all who may adopt it reason for congratulations on the mental relief that will come to them in the assurance of success in every case of diphtheria to which they may be called, more particularly in respect of children under six years of age who may become the subjects of this most fatal of infectious diseases.

In conclusion, your attention is specially invited to the description of the method employed for the application of this remedy in all the cases treated. The requirements are :

1. A kerosene or gas stove, removable to any part of the sick room or ward at pleasure.

2. A *quantum sufficit* of your refined North Carolina tar and turpentine.

3. An ordinary porcelain lined iron kettle of the same dimensions as to circumference as the burner.

The treatment has usually been inaugurated with from a pint to a quart each of your best tar and turpentine, according to the size of the utensils, the kettle to be kept one-quarter full while in use, the degree of atmospheric saturation to be regulated by raising or lowering the wicks or increasing the number of burners, according to the number of cubic feet of air space it is desired to saturate. It must be distinctly understood, however, that the success of this method depends largely upon its adoption at the earliest practicable period after the inception of the disease, for it may be stated positively, from the writer's personal experience, that the chances are very largely diminished after the supervention of general systemic poisoning.

It was hoped the remedy might prove efficacious in that scourge of early childhood "membranous croup," but two cases in which it was recently employed with the view to determine its remedial effects, succumbed within twelve hours thereafter from congestion of the lungs, proving the efficacy of the remedy in bacterial exudations and its total inefficiency in the aseptic type of the same class.

To the members of the medical profession of the State of North Carolina here present, it is asserted with knowledge based upon experience that in the method enunciated to this Society to-day, there will be found a force that, promptly applied, will annihilate this dread disease that has been decimating childhood since civilization, with its deadly attendant, unsanitation, brought in its train the septic powers of evil with which the medical profession has had to contend, and I am present here, on this occasion, in the interests of the mothers of your noble State, bewailing the sacrifice of loved ones and will not be comforted "because they are not." The charge is given you to-day to wield this faultless weapon in their and your interests, as well as those of childhood, to the end that

there may come to each and all of you the assurance of a duty well and faithfully performed, and the knowledge of having fulfilled a service to the country at large that will surely entitle you to the benediction of "Well done, good and faithful servants," enter ye into that realm of mental and moral satisfaction that comes from a duty fulfilled and the knowledge that you have been instrumental in preserving the lives of many that must, otherwise, have been inevitably sacrificed.

DISCUSSION.

Dr. Bellamy did not feel prepared to discuss the paper. Fumes from the oil of turpentine is a remedy that has been long used by the laity. It has been his custom to use it in diphtheritic croup by placing a few drops of the turpentine on a plate, which is placed over a lamp and the fumes inhaled. He has good results from it, and believes there is something in it; however, he has also used the standard remedies at the same time that he used the turpentine.

Dr. Booth hoped there was something in it. He mentioned an epidemic during which he treated 456 cases and had 22 to die in one week. A few years later there came a mild epidemic. A physician near him said he could cure every case of diphtheria with calomel. He read an article in some journal in which the author said if the chlorides were given all cases would get well. In this epidemic his practice extended for fourteen miles along a certain creek. In this year there had been many overflows and the waters of the creek had backed up over the lowlands that bordered it. The disease prevailed along this creek to its junction with the Tar river and there the epidemic stopped. On every little tributary of this creek the disease prevailed in a most malignant form and the cases literally all died despite all efforts. Consultations and advice was sought, but it all availed nothing Coming across an article in which the author strongly recommended quinine, he commenced to give it to his patients in large and increasing doses until they showed signs of cinchonism, and all that he could get under the influence of quinine got well. He mentioned a case of diphtheria which occurred at the Orphan Asylum in which the consulting physician claimed that he could effect a cure by the use of pure oil of turpentine applied locally. The speaker thought it looked very much like burning out the disease, but they tried it and the patient recovered. After this he saw it tried in several cases with success.

Dr. Anderson asked if the cases mentioned in Dr. Martindale's paper had been diagnosed by the assistance of the microscope, and the author of the paper replied that they had not.

Dr. Joseph Graham thought it very refreshing to find a remedy that would cure all cases of diphtheria. If there is any pestilence that walketh in darkness whose way is past finding out it is diphtheria. When a young man he had been through what he then considered very bad cases, and thought that if he could see the cases within the first three days he could cure them all. It was some time before he found out how many remedies there were that would cure all diseases; but this proves that it is not the remedy that cures the disease but nature. Diphtheria according to his idea has three different stages, the incubative, the maturative stage, and there is as clear a line of demarcation between them as there is in a case of gangrene. If the patient reaches that stage where he has absorbed the poison there is no remedy that will have any effect except stimulants and nourishment, and sometimes these fail. Some epidemics are mild—and then he has seen the disease kill the patient in twelve hours, and in these cases there is no remedy that will reach the case. It is the septic infection that kills the patient and not the diphtheria.

Dr. J. Westray Battle thought we should not lose sight of the fact that diphtheria is not a local disease, but that the membrane in the throat is only a local manifestation of a general systemic disease. If we can only get to the patient in time and fill him full of quinine, he thinks it will overcome the germ that gets into the blood and drive it out. He thinks that turpentine is an antiseptic to the micrococcus and acts in the same way as quinine and iron. He understood the author to say that he used the constitutional remedies also.

Dr. Roberts mentioned an epidemic in which he treated twelve cases, and of these six died. All of these six were treated with turpentine and tar inhalations. Some, he knew, were so treated from their incipiency, for the old woman in whose family they occurred had unbounded faith in the remedy. There were three cases in one house, two of which recovered; the one that died was treated with turpentine. He has almost come to the conclusion that if the patient recovered the disease was putrid sore-throat, and that if he died it was diphtheria.

Dr. Martindale expressed his regret at not being able to take part in the discussion on account of his defective hearing, but only asked that the members try the remedy, and that if they follow the rules laid down in the paper, so great is his faith in the remedy that he will *guarantee* a cure in any case that is treated before septic poisoning sets in, and believes it will relieve some of these.

Dr. Parris took the position with one of the gentlemen that preceded him that diphtheria is a constitutional disease. He has lately been through an epidemic and found that if the patient could be seen before systemic poisoning occurred and was saturated with quinine, the quinine would have an antagonistic effect. If the quinine cannot be given by the mouth, it can be administered in the form of a suppository. You can cinchonise a child through the rectum, and he has found that in proportion as you can bring about cinchonism you can successfully combat systemic infection.

Objection being raised to any further discussion on the ground that the author had closed the discussion, his consent was asked that certain gentlemen who had not had an opportunity to speak might be heard from. He cheerfully complied with the request.

The Chair ruled that the discussion must be confined to the treatment of diphtheria.

Dr. Haigh made a motion that the members be allowed as free a scope of discussion as they desired; not that he wished to antagonize the ruling of the Chair, but owing to the importance of the subject he thought it desirable to hear as much as we could.

The motion was lost, and the Chair announced that the discussion must be confined to the treatment.

Dr. Weaver gave his experience in a case the diagnosis of which was confirmed by other physicians and by the sloughing throat. He was called in consultation, and when he first saw the case the exudation was filling the posterior nares. He at once instituted the treatment by turpentine vapors, keeping the room filled with the odor of the turpentine for seven days. At the same time he adopted a plan of stimulation. The boy was very weak but recovered, and he attributed a great deal of the success to the turpentine vapors in the house.

# REPORT OF THE CHAIRMAN ON GYNECOLOGY.

By M. H. Fletcher, M.D., Asheville, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

*Mr. President and Gentlemen of the Medical Society of the State of North Carolina:*

The advances in gynecology during the past year have been few and mainly toward conservatism. When so eminent an authority as Dr. Thomas, in his recent edition (1891) on "Diseases of Women," (page 491), speaking of the advisability of evacuating pus or serum, says: "If, in spite of the sero-purulent collection, the patient be doing well and does not suffer from the local trouble, it should be left to empty itself spontaneously." If Dr. Thomas can advise such a course, we may well use the word conservative without feeling any sense of reproach.

Considerable discussion has taken place recently in regard to draining the uterus and as to which is the better method, although it has not been exactly in the line of progress, because Wylie has for ten years been teaching the value of divulsion, curetting if necessary, and draining by means of a hard rubber grooved bent tube, with bulb on the end to hold the instrument in place for the cure of endometritis.

Polk and others have revived interest in this line of treatment by advocating packing with iodoform gauze after divulsion and curetting, and even go so far as to advise curetting where, in addition to the endometritis, we have salpingitis and cellulitis—certainly a very dangerous procedure, when we are taught, and it is an established principle in gynecology, that it is a dangerous practice to pass a sound even, where we have a cellulitis. Twice in my own practice I have lit up a new latent trouble of this kind by passing a sound, once resulting in general peritonitis and death. While the principle in the treatment is not new, the revival of interest in, and the frequent discussion of, a method which has so much to recommend it, will result in good, especially so because the treatment is so far superior to the methods that are usually practiced in these cases.

In regard as to which is the better method of draining the uterus,

the rubber stem, in my judgment, has a decided advantage over the method of packing with iodoform gauze because it is more cleanly, easier applied, and does not require to be changed so often.

The routine of gynecological treatment such as the applications of iodine, iodized phenol, etc., is being discontinued, much to the relief of the patron, the patient and the doctor.

The advantages of position of the patient in the treatment of pelvic congestions as well as the Trendelenburg posture during suprapubic operations within the pelvis, has attracted some attention. We have all been taught to take advantage of position by elevating the nates and lowering the shoulders, while giving hot douches for the purpose of clearing up pelvic exudates, and knew of the advantages of rest and the recumbent position to relieve dilatation of the pelvic veins; but it remained for Emmett to suggest the value of further relieving the venous dilatation and increasing the return flow of blood by simply raising the foot of the bed 15 to 18 inches.

The Trendelenburg posture consists in raising the pelvis so that the symphysis forms the highest point and the body comes on an incline of at least 45° to the horizontal. The viscera of the abdominal cavity will gravitate towards the diaphragm and the pelvis will become free and easy of access. The small intestines will hardly come into view and will not trouble the operator during the operation. The operator can see and secure the bleeding points more easily. The posture is claimed to be of great advantage to weak and anæmic patients, preventing shock from acute anæmia of the brain. Chloroform seems to be the preferable anæsthetic to use owing to the fact that ether tends to congest the brain, which is already low. To secure this position it is necessary to procure a chair or table adapted to its use, by means of which we cange the position during the operation if necessary. It is especially desirable to change the position during irrigation in order to prevent the irrigating fluid from flowing toward the diaphragm.

Abdominal and vaginal hysterectomies have been performed a number of times during the year with a reduction of mortality, owing to greater skill acquired by the operators and to improvement in the technique of operations.

The advocates of abdominal hysterectomy urge the operation chiefly for fibroma, fibro-myoma and puerperal peritonitis. There

are still differences of opinion as to whether the stump should be treated by the intra-peritoneal, the extra-peritoneal method, or should be extirpated. To one who is a little acquainted with operations of this kind there is much that we cannot satisfy our minds about. One man of eminent authority will make a plea for "early hysterectomy and puerperal hysterectomy," and says: "We are rapidly advancing to accept early operation as a dictum in pelvic and abdominal surgery. I can find no delight in so-called conservative methods. My experience disproves and condemns them. It will become an axiom in surgery not to delay longer than to establish the fact that operation will be necessary at some time. To establish this latter fact is the question which troubles us. How can one satisfy himself that for a fibroma it will become necessary to perform hysterectomy some time during the patient's life, or that it will become necessary to remove a septic uterus." On the other hand, an authority equally as eminent will say: "Too many needless mutilations; not enough conservative gynecology. This is an age in which unscrupulous and unreasoning operative boldness, more or less helped out by antisepsis, too often takes the place of true surgical knowledge."

Vaginal hysterectomy for cancer of the uterus has more to recommend it than the suprapubic operation. We can be reasonably sure of a diagnosis; it is easier performed. The death-rate from the immediate effects of the operation is almost *nil* in the hands of some operators. There are some who still advocate high amputation of the cervix. The concensus of opinion now, however, is decidedly in favor of removing the whole organ whenever the diagnosis of malignant disease is clear. It is very little more dangerous than high amputation, and it affords greater immunity from relapse. In malignant disease of the body of the uterus total extirpation is the only means of relief, and should be performed as soon as the diagnosis is made and confirmed by the microscope. It is futile to operate if the disease has invaded the broad ligaments and extended beyond a point where ligatures can be applied; we must, however, recognize a difference between cancerons and inflammatory infiltrations of the broad ligaments The operation should also be avoided where the cancerous affection has involved the vagina or tissues about the rectum and bladder to any considerable extent. There is still some controversy as to which is safer, the

ligature or clamp, but I notice that most of those who advocated the clamp a year ago now use the ligature.

It has been in tubal and ovarian diseases that conservative surgery has made its greatest gains. Fewer tubes and ovaries are being removed. The slightly cystic ovary has been spared; at least reports of the operations have failed to find their way into the journals.

For the relief of reflex, nervous and mental derangements Battey's operation has lost its hold on the profession. The ultimate results recorded from the operation do not justify it. A large number of observers fail to ascestain results after a lapse of several years. For the cure of dysmenorrhœa, neurasthenia and hemicrania, no matter how closely these troubles may be connected with the menstrual function, the removal of the ovaries is not justifiable. For follicular ovaritis, catarrhal salpingitis and for pelvic salpingitis, the subject will bear a little investigation. For hystero-epilepsy, where the attack occurs at or about the menstrual period, and by thorough examination we are able to detect diseased ovaries, the patient's mind does not become affected, and we are reasonably sure that the disease is dependent on the function of ovulation and menstruation, the operation is justifiable and should be performed.

Brodwitz, from a thorough study of the ultimate results of castration, arrives at the conclusion that in cases of general neurosis (hystero-epilepsy and epilepsy) the ovaries simply share in the central trouble, and hence castration cannot be expected to give permanent relief; moreover, subsequent indurations and adhesions may increase the original irritation. The ordinary sequelæ of castration are molimina, congestions, cardiac disturbances, flushing and vertigo, together with a diminution of the sexual feelings in about two-thirds of the cases. Melancholy and forgetfulness are quite common, which may culminate in more pronounced psychoses.

Doléris believes that about eight-tenths of the women operated on have submitted needlessly to mutilation, which, according to his figuring, would give a result of four thousand women in Paris deprived of their ovaries or uteri without a sufficient cause.

Dr. Byron Robinson, of Chicago, puts the whole subject in a nut-shell. He says: "The test for ovariotomy should be pathology. Let every ovary removed be submitted to a competent pathologist, and soon there will arise a more decided standard. Let the patho-

logist be the man to give advice to the extreme laparotomist and the slow conservatist. We generally remove organs for some pathological cause. I fail to see why the ovary does not come under the ordinary rules. If it does not, it is high time for special pathology to come to our aid."

The treatment by means of electricity has not made much progress during the year. In fact, much of the discredit that is cast at electrical treatment is due to the fact that too much has been claimed for it by the enthusiast who rushes frantically along every new road at the speed of electricity. For amenorrhœa, lack of general or local nerve tone, neuralgic dysmenorrhœa, chronic ovaritis and ovaralgia, for some cases of uterine fibroma, for cases of non-purulent inflammation around the tubes and uterus, and associated with a dislocation of these organs, electricity deserves a continued trial. At best, it can only be considered an adjunct to other modes of treatment. When used with care it has its dangers, is painful, slow, does not always produce the desired results, and is often only a palliative measure. Keith claims further progress in electrical treatment of fibro-myomata. He claims that in 19 cases out of every 20 it relieves pain, brings about a diminution of the tumor, stops hemorrhage, the results are permanent and the growth of the tumor, if it be not lessened, is stopped. Then Brandt's gymnastic treatment with massage of female pelvic diseases has received some attention at the hands of the profession during the year. While it has not been as successful a mode of treatment when practiced by others as by the author himself. We know, as Brandt claims in his opening paragraphs on "Treatment of Diseases of Women," that gymnastic treatment in general is recognized as very useful, makes the entire body stronger and healthier, and heals a number of different local affections in which medical treatment was useless. Why would it not be good in the treatment of diseases of the pelvic organs? The advocates of the measure claim to cure retroflexions and versions of the uterus, pelvic exudations and adhesions, prolapse of the vagina and rectum. It seems reasonable that non-purulent inflammatory affections of the pelvic organs could be cured by mechanical stretching and loosening of the pathological cicatrices and adhesions. Kumpz, of Vienna, who has investigated the Brandt method and received special instruction from the author himself, claims that laparotomy in fixed retroflexion of the uterus

is not justifiable unless it is preceded by a rational massage treatment. To make the treatment effective, it seems that two conditions are necessary, one of which is a positively certain diagnosis; the other a technical mastery of the method, which cannot be acquired but from instruction by a competent teacher. Like electricity, this method of treatment is slow, tedious and painful. Life is too short for the general practitioner to become proficient in either. For my part I am willing for the specialist to have them both.

The tendency of the day is toward specialties in medicine. The specialist is inclined to become confined to his branch of study and attribute to, or persuade himself to believe, that every trouble he meets with is in some way dependent on trouble connected with his specialty, and is apt to ignore the human system as a whole. The best all-around gynecologist is he who has been and is a good general practitioner. Dr. A. B. Mott contended in 1880 that no one ought to begin a specialty till he had been in general practice for at least ten years. One of the best articles that has appeared on this subject during the year is by Dr. Ethridge, of Rush Medical College, in which he claims that too little attention is paid to the subject of general medical treatment of our gynecological patients. The gynecologist is apt to associate nervousness, headaches and backaches with diseases of the womb entirely, and will overlook nervousness arising from an imperfect capillary circulation in some part of the nervous centres, notably in the spinal cord, and that it is very often associated with deficient excretion from the skin, kidneys or bowels, and with defective cardiac action. The weak heart shares a great deal more in producing this symptom of nervousness than is generally accorded to it. Renal insufficiency, also the presence of a superabundance of uric acid, are potent factors in producing these symptoms One of the most common of gynecological patients that we meet with is the vast class presenting constipation, dyspepsia and anæmia. Constipation can derange more lives with nervousness than any one pathological condition that can be named. A sudorific or a diuretic will make many nervous patients less nervous.

# INFRA-PERITONEAL DISPOSITION OF THE PEDICLE IN SUPRA-VAGINAL HYSTERECTOMY.

By Joseph Graham, A.B., M.D., Charlotte, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

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The specimen which I present for your inspection to-day consists of the Ovaries, Fallopian Tubes and Uterus, with a number of fibroids, weighing twenty-six pounds, and removed *en masse* by a method recommended by Dr. James R. Goffe, of New York City, and styled by him, *A New Method; The Intra-Abdominal, but Extra-Peritoneal Method, of Disposing of the Pedicle in Supra-Vaginal Hysterectomy for Fibroid Tumor.* The removal of uterine fibroids by abdominal section is a subject of the greatest importance. And operators are divided into two schools—one preferring to treat the pedicle by the intra-peritoneal, and the other by the extra-peritoneal method. On account of the character of the tissues composing the stump, and the very great danger from hæmorrhage and sepsis when it was dropped within, advocates soon arose for securing the pedicle in the abdominal wound. But although *better* results have attended this method, on account of its removal from the peritoneal cavity, still the mortality which has thus far followed it, even in the hands of the most experienced and skillful operators, must exclude it from the pale of safe operations.

And even should the patient escape with her life through a tedious confinement, rendered exceedingly unpleasant and uncomfortable by the gradual sloughing of the stump in the abdominal wound; yet, even then, she is liable to be overtaken by many or all of the unpleasant features which go to make up the undesirable sequelæ of this plan of disposing of the pedicle. Not least among these may be noted the liability to hernia at the location of the stump—the interference with the functions of the bladder, as well as the dragging of the stump in the abdominal wall. And last, but not least, besides all these disadvantages, we cannot fix the stump in the abdominal wound without violating that broad principle of abdominal surgery which teaches us to "restore all the parts, as near as possible, to their proper relations with each other before

closing the wound." So there can be no question that, if supra-vaginal hysterectomy is to have a valuable future, the stump must be disposed of more nearly in its natural position than by fastening it in the abdominal wound. Goffe's operation of intra-abdominal with infra-peritoneal disposition of the pedicle, of which I am about to report you a successful case, I think comes nearer to the perfection of a mode than any I have seen recommended.

About the 15th of March, 1892, I was requested by Dr. D. O'Donoghue to see with him, at the Good Samaritan Hospital (an institution kept up for the colored people by St. Peter's Episcopal Church of Charlotte, North Carolina), Mary Hunter, who had been under his care for some time on account of menorrhagia, and numerous other discomforts, from an abdominal tumor, which had recently increased rapidly in size. He and several other physicians had already examined her, and the majority agreed with him that *some* operation by abdominal section was the only thing which promised the patient any chance of relief.

From the patient herself I elicited the following history: Aged 24 years; unmarried; never pregnant; born in Alamance county, North Carolina, of healthy parents; began to menstruate at about 13 years of age; function normal, painless and lasting about three days. When about 19 years old she observed an enlargement in lower portion of her abdomen, which increased very slowly for the next three years. The menstruation, however, began to be painful, and lasted from a week to ten and twelve days, and was sometimes quite hæmorrhagic.

For the last two years the tumors had increased much in number and size, producing pain in left hypochondrium and frequent painful micturition from pressure. The growth had now reached the size of a pregnant uterus near to the end of eighth month of gestation. Carefully examining the abdomen, I found a number of hard tumors, varying much in size—some floating at the ends of longer, and others from shorter pedicles, but all clustering around, and some apparently forming part of, what I was satisfied was the uterus. That portion of the tumor in lowest part of the abdomen was practically fixed, and could not be lifted—nor was it susceptible of much motion from side to side.

Per vaginam I found cervix uteri of normal size, quite low in pelvis and incapable of lateral motion. Passing a sound, I found

it to enter to the depth of about four and a half inches; and turning it in different directions, proved the uterus to be a part of the general tumor. There appeared to be no adhesions of any consequence, but the mass was firmly locked in the pelvis on account of its great irregularity.

I now placed the patient in the knee-chest posture, and even then, although using considerable force, found it impossible to dislodge the tumor from the pelvic cavity.

My diagnosis was multiple fibroids of the uterus. And on account of her sufferings and rapidly increasing helplessness, I advised hysterectomy for the removal of the whole mass. Her already unwieldy size, together with great soreness of the abdomen, precluded any hope of relief by establishing artificial menopause by means of Tait's operation.

My proposal for operation was very readily accepted by the patient as a message of hope. And accordingly on Tuesday, March 22d, 1892, with the assistance of my partner, Dr. S. B. Jones, Drs. Will. A. Graham, D. O'Donoghue, H. M. Wilder and R. L. Gibbon, I operated. Dr. Wilder very kindly and skillfully administered the anæsthetic, which was chloroform. The bladder having been catheterized, the vagina was washed out with soap and water, followed by a solution of bichloride of mercury, and the abdomen was thoroughly cleansed in like manner, except there was a neglect to shear off the hair—a neglect which we had cause to regret in the after-treatment.

Everything being now in readiness, I cut rapidly through the linea alba, and opening the peritoneum, came upon a nest of multiple fibroids of various sizes and different lengths of pedicles. Having observed before beginning the operation that several quite large tumors seemed to float from longer pedicles, I had hoped to be able to deliver the mass *seriatim* through a six-inch incision, but in this I was mistaken, and found it necessary to extend the cut nearly to the pubis and about one and a half inches above the umbilicus, before I got room enough to deliver the mass outside the abdomen, and even then I only *partially* succeeded, after rocking it from side to side trying to unlock it from the pelvis. The tumors were so numerous and involved the uterine substance so low down, that it was impossible to lift the mass outside the cavity till after it had been severed from the stump. Expecting to treat the stump

infra-peritoneally and find no adhesions of the bladder to the tumor, I now made an elliptical incision *through the peritoneum* across the front and posterior surfaces of the tumor successively, and dissected the peritoneum down below the internal os uteri.

An elastic ligature was here thrown around the mass, including appendages and uterus; and, being pushed down to the bottom of the posterior and anterior flaps, it was securely fastened by a strong pair of clamp forceps. Amputation was now performed just above the elastic ligature, and the tumor removed. But before I could transfix the pedicle the elastic ligature slipped on account of the shrinking of a small tumor located very low down, which had been partly included in it, and quite a free hæmorrhage ensued from the enlarged arteries and veins.

An assistant introducing his fingers per vaginam and pushing up the stump, the broad ligament was quickly in hand, and the bleeding vessels secured by means of catgut ligatures. Now, carefully freeing the pelvis of all blood, the pedicle was transfixed, within the flaps, with strong Chinese twisted silk, and tied on either side of the cervix, like the pedicle of an ovarian tumor, each knot being cut short. I believe, now, however, that it would have been better to have left one long end to this ligature, and have passed it through the cervical canal into the vagina for its more easy removal after the accomplishment of its work.

The stump had been cut so low down to get below all fibroids, that it needed no trimming. From now to the completion of the operation I followed so nearly Dr. Goffe's directions that I quote much of his exact language in describing it. Now, beginning at the upper border of the left broad ligament, the raw surface was covered in by an over and over continuous stitch of fine silk-worm gut down its entire width; then, over the top of the stump, the peritoneum having been closely and firmly stitched, the suture was continued up the width of the right broad ligament to its free border; so that the bottom of the pelvis presented only a smooth peritoneal surface with this continuous line of silk-worm gut suture running across from side to side.

On account of the accidental hæmorrhage and the consequent delay the peritoneal cavity was thoroughly flushed with boiled water at about 110°, and also a hot, weak solution of bichloride of mercury. This last was used by mistake, and I was unaware of it

till I noticed some sequelæ some days after the operation. After all this was thoroughly dried out and the toilet of the peritoneum completed, the abdominal cavity was closed by means of silk sutures, which had been thoroughly prepared antiseptically by Dr. S. B. Jones. The dressings consisted of iodoform gauze, layers of absorbent cotton and a roller bandage of bichloride of mercury gauze to hold them in place and give support to the abdomen.

Patient was put to bed with plenty of heat applied externally, and she rallied well, vomiting only a little from the anæsthetic. She complained, as soon as from under the influence of chloroform, of paroxysmal pains, like after pains, referred to the region of the stump. For these she had hypodermatic injection of morphine and atropia, which had to be repeated from time to time till stump ligature had had time to become loosened.

Evening after the operation the temperature was 100°; pulse 80.

May 23d, 9 a. m., temperature 101°; pulse 88.

Fearing some intestinal adhesion should take place in pelvis, I determined to give Rochelle salts, ℥ j, every two hours till bowels had acted; also hoping to relieve sepsis should temperature be due to that. Stomach was very intolerant of the salts, and, by the time for the third dose, would not retain it at all, but vomited it with a good deal of bile. Gave large turpentine enema in soap-suds—no action, but rested fairly well that night.

May 24th, 9 a. m., temperature 101°; pulse 84; stomach quite intolerant, with spitting of a good deal of frothy saliva. No good action having thus far been obtained from the bowels, I determined to give her calomel, grains x. Three hours afterwards used turpentine and yelk of egg injection—retained.

6 p. m.—No action yet. Began to fear paresis of the bowel as abdomen was greatly distended. Injection of Epsom salts and glycerine, which brought a large, liquid, fecal action. Under morphia patient had quite a comfortable night.

25th, 9 a. m.—Temperature 99.⅘°; pulse 80; very much nauseated; cause not discernible.

6. p. m.—Temperature 100 ⅗°; pulse 85; nausea unabated; unable to retain anything on her stomach; nausea relieved by hypodermatic injection of morphia and atropia.

26th, 9 a. m.—Temperature 101.⅕; pulse 96; not nauseated;

dilated cervix uteri, and washed from under peritoneal flaps about an ounce of dark grumous blood, very offensive.

2 p. m.—Temperature 102°; pulse 96.

5 p. m.—Temperature 102.$\frac{3}{5}$°; pulse 100; rewashed stump with carbolic solution 1—40.

27th, 9 a. m.—Temperature 101°; pulse 110.

28th, 9 a m.—Temperature 101°; pulse 110; dilated cervix and washed out a lot of broken down slough from above the ligature—very offensive indeed.

I learn from patient that mouth and parotid glands are quite sore, and have been so from the morning of the 24th (second morning after using the bichloride solution in the peritoneal cavity, and before taking the dose of calomel); painful mucous plaques found both in mouth and vagina. This condition accounts for most of the unpleasant symptoms up to this time—some were due, as seen when the dressing and stitches were removed on the seventh day, to a small mural abscess at the lowest stitch near pubis, where we had failed to shave the hair. About the fourth day there was plenty of sloughing septic accumulation about the stump to account for the rises of temperature.

A detail of the symptoms from this time on would prove not only tedious, but uninteresting. Suffice it to say that I washed the cervix out *daily* with salt and water till the temperature stood at normal. I tried several kinds of drainage tubes, but none gave me as good results as the daily washings; these were continued for eighteen days. The ligature was removed through cervix on the 21st day. At the end of the fourth week patient was up and about her room. Since that time recovery has been uninterrupted, till now she is a well woman.

A letter from Dr. Goffe tells me has modified the operation in one case by placing a draining-tube through the stump before closing the flaps, but his patient died from shock, so that he was unable to say whether the modification was an improvement or not.

Professor Keene writes Dr. Goffe that he has done the operation also, but modified it by "ligating the uterine and ovarian arteries in the broad ligaments instead of transfixing the stump."

Both of the above suggestions had occurred to me while treating this case, and were discussed with my partner, Dr. S. B. Jones.

Some plan which will obviate the sloughing of the stump seems

to be all that is needed to stamp this the ideal supra-vaginal hysterectomy. And although it may not always be an easy matter to carry out Prof. Keene's suggestion of ligating the arteries in the broad ligaments, yet I believe it should be tried, and a V shaped metal drainage-tube, open at the upper end, inserted in the cervical canal, to remain as long as it might be needed. When it had fulfilled its missi n it could be easily removed by dilating the cervix and compressing the upper end of the tube with a pair of slender forceps.

DISCUSSION.

Dr. Michael, in discussing Dr. Graham's paper, was much struck by the first remarks of the author, in which he said that, while we acknowledge that these cases had better be sent to specialists, there occur cases which are not able to incur the expense, and it is our duty to do our best for them He thought the author had nothing to fear if this case were a specimen of his skill. He was interested in the manner of treating the pedicle. The treatment heretofore in vogue of attaching the stump to the abdominal wound is repugnant to modern surgery, and he has for a long time thought that the development of this matter must turn in the direction of the subperitoneal method, which has heretofore been unsuccessful. The method here represented is not altogether a novel one, the outcome of any one man's ideas, but it is the aggregation of suggestions from various surgeons He believed what was so brilliantly represented in the author's paper will in some form or other ultimately be the method by which these pedicles will be dealt with. He thought the previous ligation of the uterine arteries would play an important part in the management of these cases. He had never removed such a tumor and would undertake the task with great hesitancy He disapproved of the idea advanced by the author of leaving the ligatures long and carrying one end through the cervical canal lest they be the means of carrying infection to the stump. He is convinced that in a simple wound-cavity there is no need for drainage under proper precautions. For some years he has almost abandoned the use of drainage for general surgery. In amputations of the breast, and even in operations where the knee-joint was opened, he has closed the wound without drainage and left the dressings on for four weeks, and thinks the treatment of the pedicle

could be carried out on the same principle without the use of the long ligature. He thought the case reflected great credit on the author.

Dr. Chambers was much interested both in the case itself and in the treatment of the pedicle He referred to the unsatisfactory method of dealing with the stump heretofore. He thought it not desirable to ligate an artery some distance from the point at which it was to be cut. As the stump in this method of treatment was where it could not be gotten at, he thought the author's suggestion of carrying the ligature through the canal quite reasonable. The ligature, however, would probably not drain much on account of the tightness of the canal. The mortality where such large tumors were removed from any part of the body was quite large, and the wonder ought not to be that so many die, but that so many recover. The treatment of this case leaves the parts very nearly in their normal relations, which is a great desideratum. It avoids the unnatural condition of having the pelvic contents bound to the anterior abdominal wall the balance of the woman's life. He thought that in time, with some modifications, it would become the universal method of treating the pedicle. He thought it the most interesting specimen of the kind he had ever seen.

Dr. Graham explained that his idea in carrying the ligature through the canal was not for drainage at all, but simply as a means for getting rid of the ligature at any earlier period after it had accomplished its object. He thought the objection on account of the danger of sepsis probably had some foundation, but the canal is open any way.

# HOSPITAL NOTES.

By W. W. Lane, M.D., Surgeon in Charge of the City Hospital at Wilmington, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

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## *Case* 1.—Supra-Pubic Lithotomy.

In July, 1889, this patient, L. B., aged about 60 years, had an artificial urethra established in the supra-pubic region after Hunter McGuire's method, in consequence of an enlarged prostate.

The case at the time was published in the North Carolina Medical Journal. A few months after the operation the patient began to suffer symptoms of stone, and, on passing a small sound through the artificial opening, the stone was discovered.

The operation for his relief was performed by passing a long director through the artificial urethra down to the stone; a long, narrow-bladed knife was carried along the groove into the bladder; it was then removed, the finger inserted, the wound enlarged and the stone removed with the stone forceps; a rubber bag was previously inserted into the rectum and filled with water so as to push the bladder well over the pubes; this latter procedure is not now considered necessary, the Trendelenburg position being substituted in its place.

Two stones were found—phosphatic—the larger one weighing 3 ij, the other the size of a pumpkin-seed. The bladder was thoroughly irrigated with boric acid solution and the wound in integument apposed with silk; a catheter was left in for twenty-four hours. The wound healed rapidly and kindly, and the patient was discharged with good power of retention.

It is now nearly three years since I established this artificial urethra in the first instance, at the present time the man being in the enjoyment of good health, passing his water in a fairly good stream, and able to retain it at will.

The recti muscles appear to perform the function of a quasi sphincter remarkably well.

*Case* 2.—Excision of the Entire Upper Extremity, Including Scapula and Part of Clavicle.

W. N., aged 54, was admitted with tuberculosis of the head of the humerus. The injury was brought about in the first instance by a fall on the shoulder. The injury resulted in several abscesses, leaving sinuses leading down to the head and upper part of humerus

It was deemed advisable to make an effort to save the arm, and a resection was determined upon. I therefore made an incision from the top of the shoulder through the deltoid down to the bone; this revealed two or three pus-pockets in and near the head of the bone, and two or more inches of the shaft denuded of periosteum; about four and a half inches, including the head, was removed with the chain saw. The arm was dressed in the most thorough aseptic manner and strapped firmly to the side.

After the resection the disease rapidly developed in the scapula and end of clavicle. It was thought unadvisable to attempt partial section under the circumstances; so I determined to excise the entire limb along with the scapula.

The arm was first amputated through the part where the resection had been done. The axillary artery being first secured by a cord passed under the armpit and twisted over the shoulder, was then ligated. An incision was then made along the top of the shoulder and spine to the lower end of the scapula; this bone was then carefully dissected from its attachments, the blood-vessels secured and the entire bone removed. The acromial end of the clavicle being found to be involved in the disease, about two inches of that bone was removed.

The patient has recovered his usual good health, though there are now sinuses still existing, probably coming from sternum and ribs.

*Case* 3.—Ectopic Pregnancy.—Operation by Dr. William J. Love, July 30, 1891.

It has been very difficult to get a good previous history of this case—only the steps of the operation are here recorded.

Usual symptoms of pregnancy; fœtal motion ceased at seventh month; operation done ten months after impregnation; sac opened; fœtus and placenta removed; the latter peeling off like rotten wood;

without hæmorrhage; sac consisting of right Fallopian tube, with ovary expanded over it; the sac was removed, leaving the base crenated; sac bled only where the expanded ovary covered it; drainage-tube inserted and retained for several days; little fever from beginning to end of case; the left ovary was removed on account of the damage done to left broad ligament in breaking up adhesions, which were numerous and extensive.

Great quantities of offensive purulent matter passed daily through the tube; cavity irrigated daily with either hot salt water, carbolized water or bichloride solution, 1—4000.

By the first of November the discharge had ceased and the opening closed.

On the 6th of November she was discharged cured.

### DISCUSSION.

Dr. W. H. H. Cobb regretted that he was not present when Dr. Lane exhibited his cases. The operation for the establishment of an artificial urethra above the pubes had been often done by Dr. McGuire. He did the operation some time since for enlarged prostate, and the drainage is so complete that the patient gets rid of all the evil after-effects of the operation. He thought it should be indorsed by the profession. Dr. Davis has modified the operation by putting in the bottom stitch before inserting the tube.

Dr. Galloway mentioned the case of an elderly gentleman who suffered from an enlarged prostate with retention in whom the operation was done with success and satisfactory results He allowed the drainage-tube to remain in about two weeks. This patient urinated through the artificial opening for three or four months, after which the opening closed and the urine was passed through the natural passage.

# REPORT OF THE CHAIRMAN OF THE SECTION ON MATERIA MEDICA AND THERAPEUTICS.

By R. G. Noble, M.D., Selma, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

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*Mr. President and Gentlemen of the Medical Society of the State of North Carolina:*

The report of the Chairman of the Section of Materia Medica can only be a reiteration of things recently published in medical journals, and your time is too valuable for me to consume in reading abstracts from the journals of cases you have already read.

Pyoktanin is an antiseptic substance derived from aniline colors, occurring in two colors, blue and yellow, and all that I shall say of pyoktanin will have reference to the blue only. It is insoluble in collodion, ether and benzine; is soluble in chloroform, in 50 parts of glycerine and 12 parts of 90 per cent. alcohol. It is also soluble in 30 parts of boiling water, and easily so in 50 parts of hot water. For most purposes, however, we require a cold water solution, which can be made of any required strength up to a concentration of 1 part of pyoktanin in 75 parts of cold water. One disadvantage in the use of pyoktanin is that the blue color masks the wound so that we cannot see what the actual condition is.

"Pyoktanin has been shown to possess great germ-destroying power, and this, in connection with its ready diffusibility in healthy as well as diseased animal tissue, makes it a very promising remedial agent, especially so as it is harmless compared to the bichloride of mercury, carbolic acid an similar substances. It is devoid of any injurious effect on the human economy if used with proper precautions."—H. J. Boldt, M.D., in *Merck's Bulletin.*

Dr. Balfour, of Monil Kan, used pyoktanin with success in a case of facial erysipelas. He used a 1—500 solution applied every four hours. He says: "Patient declared pain left in twenty minutes after first application."

Dr. A. B. McKinnon, of Fairhaven, Wash., used a solution of 1—100 on a tumor of the lip, the edges of which were reddened and everted, the centre a dirty, ulcerated-looking mass, with perfect

success. The tumor had been pronounced carcinoma by several physicians.

"In small doses, one and two-thirds to three and one-third grains, by the mouth, pyoktanin may cause malaise, nausea, certain painful sensations and a transient albuminuria. In large doses, six to ten grains, for one unaccustomed to it, it may produce vomiting diarrhœa, vesical tenesmus and albuminuria. In functional nervous diseases it produces a disturbance which may dispel or shift pain, but it does not compare in activity with analgesin."—GAILLARD, on the Toxicity of Pyoktanin, in *L' Union Med.*

Dr. W. C. Gates, of Rockland, Mich., in *Medical Age*, used pyoktanin in a case of tonsilitis, and found more and quicker relief from it than from anything he ever tried. He injected half a drachm of a solution of pyoktanin (grs. ij to ℥ i) into each tonsil. At the end of ten hours he was a great deal better, but he injected about half the quantity again, as the tonsils were still somewhat swollen.

Dr. Balfour, of Morril, Kan., says: "I consider pyoktanin of most value, surgically, in fresh or recent wounds. However, I have had decided success with its use in chronic ulcers, but not such brilliant results as in recent wounds."

Dr. Netchaïew, of Moscow, gave to three patients suffering with incipient Bright's disease three wafers, containing half-grain each. He claims complete cures in the three cases in seventeen, nine and twelve days respectively.

Rohrer, of Zurich, in the *Therapeutic Gazette*, found that by the addition of pyoktanin to the routine treatment, of diseases of the ear, by peroxide of hydrogen and boric acid prompt cessation of the suppuration, previously uncontrolled, followed.

Dr. Tiffany, of Kansas City, Mo, says: "The remedy has not been sufficiently used to establish it as so valuable a remedy as Prof. Stilling claims it to be. My experience so far has been that the good effect of this agent is especially to be realized in inflammation of the deeper structures of the eyeball."

Three cases of epithelioma of the eyelid, one of cancer of the tongue and one of primary cancer of the glands of the neck, were treated with pyoktanin. All were failures. On extirpating the growths a microscopical examination showed not the slightest change in the epithelial elements.—LE DEUTER, in *La Tribune. Med.*

Quéne found that similar injections softened the centre of tumors without in the least affecting the periphery.

DuPré employed the drug in three cases of facial epithelioma and in two cases of inoperable uterine cancer, with no beneficial effect save a lessening of the disagreeable odor.

Guthman and Ehrlich, in *Berliner Klinische Wochenschrift*, were induced to try pyoktanin in the treatment of malaria. They decided that the drug had a decided curative influence over the disease—the periodical attacks of fever ceased within a few days of the exhibition of the drug, and at the end of eight days, at the latest, all plasmoida had disappeared from the blood. They say the treatment must be continued at least eight or ten days after the disappearance of the fever. They administered the drug in doses of one to five grains, in capsules, five times a day.

The action of pyoktanin is very striking if we consider that modern synthetical chemistry has for years tried in vain to produce a substance which shall exercise a curative influence on malaria. All the modern antipyretics—first of all quinoline, then kairin, antipyrine, antifebrin, thalline, phenacetine, etc., have not come up to this task.

No unpleasant symptoms of any consequence have been observed. The sole untoward effect having been a slight spastic irritation of the bladder with increased desire to urinate, which, however, can be avoided by administering a pinch of powdered nutmeg several times a day. Naturally the urine is colored intensely blue after taking the drug, and the stools themselves become blue immediately upon access to air."

Whether the treatment of intermittent fever by means of pyoktanin will have any effect on the periodicity of malaria or guard against relapses, which often supervene also upon the quinine treatment, cannot as yet be stated. The future will have to decide the important question, as Laveran, in *Languedoc Medical*, reports two cases of patients who were suffering from malarial disease, to whom he gave the drug in the dose of four to six grains a day until they had taken about two drachms of the drug without producing any effect on the malarial organism. As the result of his experiments, he says that "pyoktanin is utterly without effect, and simply serves to color the urine blue."

Professor Stilling, of Strassburg, in *Merck's Bulletin*, the inven-

tor of pyoktanin, says "the results obtained from the use of pyoktanin in ophthalmologic practice are extraordinarily satisfactory. Conjunctivitis heals generally in a day; corneal ulcers, as a rule, in one or two days; serious cases naturally requiring a longer time, nevertheless healing in a very short time, as compared to that required heretofore under the usual methods of treatment. The eminent suitability of the name 'Pyoktanin' (English 'Pus-killer') for this group of pigments has been redemonstrated, *in still a more extended application* than that suggested by Stilling even; as, from Buckner's investigations, it appears that this group of pigments possesses the faculty of *rendering inert not only the pus-bacteria themselves, but also the toxines, i. e.,* poisonous emanations, produced by the bacteria."

Dr. Marchetti, in *Merck's Bulletin,* after extensive investigations, has arrived at the following conclusions:

1st. In ½ p. c. solution and in pencil form pyoktanin is well borne by the eye.

2d. It is an *excellent* remedy in *dacryocistitis* with denuded nasal bones; it *accelerates cure* in a surprising manner.

3d. In chronic blenorrhœa of the lachrymal sac pyoktanin proved *very serviceable* in diminishing the secretion.

4th. In extensive *corneal infiltrations* with loss of substance, and showing no tendency to heal, the action of pyoktanin is striking.

5th. In *hypopyon-keratitis* pyoktanin exerts a *surprising* influence on the suppuration; sometimes the hypopyon is gone and the ulcer has a healthier appearance after only twenty-four hour's treatment.

6th. In hypopyon-keratitis *complicated* with an affection of the lachrymal duct, pyoktanin has no effect.

7th. In a case of panophthalmia, following upon cataract, pyoktanin *arrested the suppuration.* As early as after twenty-four hours the troublesome subjective symptoms disappeared; the disease ran a slow course and assumed the character of a plastic interstitial choroiditis and iridocyclitis.

8th. In a case of panophthalmia subsequent to an injury to the coma, the application of pyoktanin (instillation of a 1 : 1000 solution, 2–3 times daily) *exceeded all expectations;* its *energy and prompt action* prevented the imminent iridocyclitis from appearing.

Dr. J. J. T. Jelks, in the *Journal of the American Medical*

*Association*, in speaking of pyoktanin in blenorrhœa of the conjunctiva, says: "Some of the cases have gotten well with marvellous rapidity—a few in twenty-four to forty-eight hours; again, others have gained no benefit from the remedy. I am not able to tell why this should be so."

Dr. Wyethe, of Oakland, Cal., used pyoktanin in a compound fracture of the radius and ulna, not a particle of pus forming. In a case of recurring sarcomatous tumor of the cavity of the eye an application of the pyoktanin pencil prevented a recurrence. He also used it with success after the enucleation of a large epithelioma of the uterus. He says: "The remarkable success of pyoktanin in some of my surgical and gynæcological cases render it a matter of justice to report them, or at least such typical cases as may serve to exhibit the power of the drug."

Nenci, of Warochan, in *Merck's Bulletin*, reports on the successful treatment of four obstinate cases of cystitis by means of vesical irrigation with pyoktanin solutions. After employing other remedies in vain he resorted to vesical injections of 1—1000 and 1—500 solution of pyoktanin twice daily, with the happy result of effecting a cure on the tenth and fourteenth days. As early as the second day of treatment there was a marked improvement.

Dr. Masini, in *Merck's Bulletin*, says: "I made two series of *animal experiments* with pyoktanin with a view of determining its power as an antitubercular in pulmonary tuberculosis. In the first series three cubic centimeters (forty-eight minims) of a 0.2 p. c. solution of pyoktanin were injected simultaneously with sputum containing tubercular bacilli; this procedure being repeated on each of the following days. The result was that *all the animals remained healthy*.

"In the second series of experiments the injections were commenced three to four weeks *after tubercular infection had been effected*, and were continued for three days, after which the animals were killed. *In not one of these animals were there any tuberculous changes* found on post-mortem examination.

Dr. von Schlen reports in the *Wenier Medizin. Presse*, the case of a man, aged 70, with ulcerating chancroid, in which he had *remarkable success* with pyoktanin. The tumor was situated in the middle of the cheek and was as large as a two-cent piece. Pyokta-

nin in substance was applied and kept *in situ* by means of plaster and glue.

"Within five days the secretion had already diminished considerably and the ulcer was flatter. The dressing was now renewed twice weekly, later but once a week. The surface of the ulcer rapidly cicatrized until, after two months treatment nothing was left of the chancroid save a slightly discolored scar."

Prof. A. Caccherelli, of the University of Panna, used pyoktanin in malignant neoplasms with almost negative results. In sarcoma of the lower jaw it caused an arrest of growth, but no reduction in the size of the tumor. In recurrent epithelioma of the eyelid and cheek there was no spread of the ulcer while under treatment. In one case of cancer of the breast injections of pyoktanin had no effect on the progress of the disease, while in another the same treatment completely arrested epithelial proliferation and relieved the pain.

In rodent ulcers, treated with pyoktanin-collodion, there was no healing, but the patient's condition improved considerably. In a case of epithelioma of the lip two month's application of pyoktanin-collodion (1 to 30) seemed to check the progress of the disease and improve the local condition.

Dr. Victor Bachmaier, of Vienna, treated a case of inoperable uterine carcinoma with pyoktanin injections, 1—300, using twenty-four minims every second day, gradually increasing to forty-eight minims for four months. Pain or febrile symptoms *never* followed the injections, nor did the case in any manner react unfavorably; and, while he expects the disease to become worse again and end in death at some future time, the patient is yet alive and even enjoys life again. Had it not been for this treatment she would have died very soon.

Prof. von Mosetig-Moorhof, in *Wiener Med. Presse*, in a paper on the treatment of inoperable new growths, reports four cases treated by him with pyoktanin. The first was a case of a sarcoma of the inferior maxillary of large size; the second a case of cystic sarcoma of the left sterno-clavicular articulation; the third a papilloma of the bladder; the fourth a large pelvic tumor, which assumed such size as to interfere with the movements of the bowels, finally making colotomy necessary. The tumor had ulcerated above Poupart's ligament, before the pyoktanin treatment

was adopted in this case. In all the results were entirely satisfactory, but in the last named case the result was astonishing, far after fifteen injections the tumor was reduced to one-third its former size and the patient able to be about and attend to his usual vocation.

Dr. Willy Meyer (*Medical Record* April, 1891) treated four cases of cancer, one epithelioma of the scalp, one epithelioma of the face, and two of cancer of the breast, which were beneficially influenced by pyoktanin.

Dr. M. Bellotti (*Rifoma Med.*) also tried the pyoktanin treatment in two cases of malignant disease with the result of improving the local condition.

Prof. M. F. Coomes, of Louisville, Ky., (*Med. Age*) treated two cases of lupus involving the interior and exterior portions of the nose. He says: "I have every hope of curing both cases, and make this report trusting that those who have patients with lupus will give pyoktanin a fair and impartial trial, conducting the work in a way to leave no doubt as to what agent produces the relief. I have been using three parts of pyoktanin to one thousand parts of water."

"Pyoktanin is a failure as an antiseptic," says Dr. Roswell Park in *Annals of Surgery*. "It cannot be relied upon in surgery except in strength that is dangerous." He adds: "Upon granulating surfaces it does not appear to be stimulating and to exert a desirable effect, but no more so than other substances within as easy or easier reach, and its stain is often undesirable. In ophthalmological practice it appears also to have scarcely come up to the requirements of the day. On the whole, then, it has but few qualities by which we are to commend it above numerous other drugs of its general class, while in all that answers to the more scrupulous demands of aseptic surgery it has proved (in my hands, as in those of others who have tested it from the purely clinical standpoint) disappointing."

Prof. H. J. Boldt, of New York (*Merck's Bulletin*, 1892) seems to have a better opinion of pyoktanin, for he says: "If, then, one has found a remedy which seemingly answers far *better* than anything hitherto known to lessen the various discomforts caused by far-advanced uterine cancer, it is his duty, in my estimation to make known his experience, though the number of cases on which

it is tried may be limited. It is for this reason I desire to call attention to the results which I have obtained by the employment of pyoktanin in the treatment of advanced uterine carcinoma." His method of treatment was to thoroughly curette all of the diseased structure within safe reach with the largest curette. A dry iodoform gauze tampon usually sufficed to check the bleeding. After forty-eight hours the gauze is removed and a douche of bichloride of mercury, 1—2000, used. The patient was then placed in Sims's position, the parts being thoroughly dried with aseptic absorbent cotton. He begins making his injections at the fundus uteri. The needle is inserted from one-half inch to the full length of the needle. One syringefull of pyoktanin solution is enough for two or three punctures. Sometimes as many as fifteen punctures are made at one sitting. He uses an aqueous solution of pyoktanin (1—100). After completing the injections pure pyoktanin powder is introduced into the cavity of the uterus, or absorbent cotton saturation, with a 1 to 75 solution, can be used instead of the dry powder.

"Care is taken, by using large tampons, to prevent soiling the patient's clothes. Immediately after the injections the patients usually experience very intense pain; it, however, does not continue longer than twenty or thirty minutes. Febrile reaction, or, in fact, any unpleasant symptoms, have never followed. It will be noticed that, regarding dosage, the treatment here advised is more heroic than that hitherto reported; but I have at no time, so far, noticed any ill-result." He speaks very highly of the analgesic properties of the drug.

Noticing a communication from Dr. Hoge in the *Virginia Medical Monthly* for October, 1891, in which he made a complete failure, he says: "Dr. Hoge's failure to achieve a satisfactory result is not astonishing, since he used the remedy insufficiently."

Also another explanation for unsatisfactory results might sometimes be found in the instability of pyoktanin solutions. It is perhaps not generally known that the solutions of pyoktanin, either alcoholic or aqueous, whether weak or strong, will not keep long; especially when exposed to light, they decompose very rapidly, that is, in the course of a couple of days, without showing their decomposition by a marked change in color. Hence the solutions should be made *fresh* every day.

### EUROPHEN

is another new dermic remedy. It appears as a fine yellow powder of an aromatic, saffron-like odor, insoluble in water and glycerine, readily soluble in alcohol, in ether, in benzine and in oil.

Euraphen is permanent in the dry state; but, when heated with water to 158° F., or if left in contact with moisture even at ordinary temperature, it gives off free iodine. Solutions and ointments of europhen should therefore be prepared cold. Its physiological action is similar to that of iodoform, and like iodoform and aristol, is active only when applied to moist surfaces which are able to withdraw from it a certain amount of iodine in a free state.

According to the observations thus far made, europhen appears to have the following advantages over iodoform :

1st. Its smell is less intense and not disagreeable.

2d. It is innocuous ; and

3d. It has a lower specific gravity; and, according to Dr. Eichhoff, it has greater attenuability, owing to its lightness in weight. One part of europhen will cover as great a surface as five parts of iodoform.

Dr. P. J. Eichhoff, of Elberfield, reports thirty-three cases in which he employed europhen. These include ulcers dersum, ulcers molle, condyloma, gonorrhœa, ulcers cruris, lupus, psoriasis, eczema, favus and scrophuloderma. All the venereal cases were favorably influenced save gonorrhœa; the cases of ulcers molle were promptly cured by simply dusting with europhen in substance. Constitutional syphilis in every form was benefited by the external application of europhen, in substance, as well as by the subcutaneous injection of europhen in oily solution, $\frac{1}{4}$ to $1\frac{1}{2}$ grains once daily. Of the non venereal affections all were benefited except eczema parasitarium, favus and psoriasis.

Vulpius states in the *Deutsche Medicinishe Wochenschrift* that the results of his bacteriological experiments agree in essential particulars with those of Siebel and Goldman. It was tested upon axthrax bacilli, staphylococcus pyogenes aureus and the bacillus pyocyamus. Anthrax bacilli attained a slight growth once, but otherwise they seemed always to be rendered inert. Staphylococci were essentially checked in their development, although, perhaps, not so much so as under the influence of iodoform.

Pyocyaneus seemed not to be influenced by europhen. He thinks that europhen is less poisonous than iodoform He used it locally in the form of a powder-ointment and gauze, and never saw any symptoms of poisoning, nor was eczema produced.

The remedy promoted the healing of wounds, and he thinks his trials warrant him in recommending it when rapid and vigorous granulations are to be excited.

Fernandez, in the *Archives of Ophthalmology*, has been experimenting with this drug, and has confirmed a number of previous reports in regard to it. He has tried it on inflamed conjunctivas and corneas, using a salve of from one-half to one per cent.

The application is less painful than iodol. A salve of five to ten per cent. is too irritating; hence a salve of less than two per cent. is recommended.

Nolda (*Therap. Montsh.*, October, 1891,) relates some observations on europhen. In four out of six cases soft sores healed in from seven to nine days, the remaining ones in twelve to fourteen days respectively. The parts affected were washed with perchloride of mercury (1 to 2000) and the pure powder dusted on.

In one very extensive sore the author says that the half treated with europhen healed two days sooner than the other half treated with iodoform. Europhen is indicated in all cases where iodoform was formerly employed. Its healing qualities excell those of iodoform in cases of spreading ulcers.

Dr. Löwenstein presents a very valuable contribution on asepsis in the nasal cavities in the *Therapeutische Monatchefte.* "He finds the insufflation of powdered europhen of great value after opera- in the nose, not only because of its antiseptic properties, but as well as a remedy for checking hæmorrhage. In ozena he finds it inferior to aristol, which, when used after removal of the crusts and thorough cleansing of the nasal cavities, has yielded brilliant results. In chronic atrophic rhinitis europhen has relieved the symptoms and improved the appearance of the mucous membranes. He found, however, that a ten per cent. solution in fifteen per cent. of olive oil with eighty-five per cent. of lanolin, was more rapid and beneficial in its action. In three cases of perforating ulcer of the septum he achieved brilliant results."

# SOME REMARKS RELATIVE TO THE STATE BOARD OF PUBLIC CHARITIES AND COUNTY CHARITABLE AND PENAL INSTITUTIONS.

By William H. Cobb, Jr., M.D., Chairman of Section of State Medicine and Medical Jurisprudence.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

*Mr. President and Gentlemen of the Medical Society of the State of North Carolina:*

Great and growing have been the demands requiring the permanent establishment and maintenance of a State Board of Public Charities, and its supervision in a general sense over all Penal and Charitable Institutions in the State; and it is indeed gratifying to know that we can now point with pride to such an organization, and feel that through these trusted agents, safeguards of mercy and justice, our poor and afflicted will be kindly dealt with and shielded from all harm, and our criminals will not be abused, but shall be protected and humane consideration vouchsafed unto them.

Irregularities, mismanagement and abuses will creep into public institutions of every country; North Carolina is no exception to this statement; nor are we as a people more prone to these ill uses than our neighboring States, but human nature is very much the same the world over, and the "flesh is weak" when subjected to temptations.

North Carolina, ever foremost in good works and noble deeds, and early recognizing the necessity for State supervision in the control and management of all charitable and penal institutions within her borders, was not slow to make provisions whereby this object might be attained, and in Article 11, Section 7 of our State Constitution we have the authority for the establishment of a Board of Public Charities, "to whom shall be entrusted the supervision of all charitable and penal institutions, and who shall annually report to the Governor upon their condition, with suggestions for their improvements." It was not, however, until 1869 that the General Assembly "proceeded by concurrent vote to select five electors, who shall be styled the Board of Public Charities of the State of North Carolina"; and at one time so much authority was

vested in this organization that no change could be made in the management of State institutions without the advice or consent of this Board; but this act has been repealed, and wisely so, I think, as its enforcement could not but engender dissatisfaction, but would necessarily produce a division of authority.

The history of the existence of this Board of Charities, in its labors of love and efforts for the amelioration of suffering humanity, from its first organization until now, would be but the portrayal of a struggle for life under great disadvantages and almost insurmountable difficulties, with but little manifestation of appreciation by our law-makers and with very little assistance and coöperation from the people at large. It would be but the repetition of known facts and a trespass on your valuable time were I to attempt to recount the many trials encountered and the signal failures made in trying to accomplish the purposes for which they were created, all because they had not the funds necessary to meet absolute expenses in carrying on their work. These facts and others pertaining to this subject were most graphically set forth in an able paper by Dr. K. P. Battle, Jr., read before the Society at its annual meeting at Elizabeth City, in 1889.

Suffice it to say that, though having to labor under adverse circumstances, it still exists, and is to-day an honor to our State, and has accomplished more this year than ever before in the history of its existence.

Heretofore the Board was empowered to meet four times annually, viz: in January, April, July and October, and if it was deemed proper and necessary, more frequently, and yet provision was made for payment of expenses of only one annual meeting; but the last General Assembly, evidently appreciating more fully the responsibility of their labors, repealed these restrictions, and members are allowed their actual expenses for each and every meeting, and as a great deal of work falls upon the shoulders of the Secretary, he is allowed compensation for the time actually engaged in attending to the duties of his office and the cost of all stationery used.

While probably it was contemplated that they would meet quarterly, it is now quite likely that only semi-annual meetings will be necessary, unless the development of unexpected causes should require more frequent sessions, which of course will be regulated by the members of the Board.

The Board of Charities, in obtaining the desired information have adopted an admirable method whereby they can learn directly of the conditions and management of institutions under their surveilance, and that is by sending out the following notice to different gentlemen in the various counties who are known to be men of good standing and excellent character, asking their coöperation and assistance in acquiring the needed information.

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"DEAR SIR:—In pursuance of authority vested in the State Board of Public Charities to inspect the several penal and charitable institutions throughout the State, by the members of said Board, or "otherwise," it has been determined by the Board that the most effective method of proceeding would be the organization of visiting committees of three citizens in each of the counties of North Carolina. To this end the Board asks the coöperation of humane and patriotic citizens to assist in the effort to ascertain the condition and management of all jails, poor-houses, work-houses, etc., in each county. No compensation is proposed for this service. It will not be requested of any but citizens of high character and public spirit, who will be willing at certain periods to visit the institutions named, and exercise a moral supervision over their conduct and operations. Will you kindly accept this charge for your county? It is proposed to forward to you blanks with suitable inquiries, to be answered by the officials in charge, and returned to this office. These will be of great value in ascertaining the true condition of the institutions named within the State.

"It is not believed that the moral effect of personal visits from influential citizens in each county can be surpassed by any other form of inspection or superintendence.

"The Commissioners of Public Charities receive no compensation for their own services, and therefore consistently ask the aid of their fellow-citizens in a duty imperatively needed in our midst. It will be perceived, on reflection, that no board of a limited number could adequately perform it in person; nor could the work of paid officials (even if there were funds appropriated for said purpose, which is not the case) be comparable with the labors of public-spirited citizens inspired by pity for the unfortunate and patriotic devotion to the best interests of the people.

"If you will accept the chrrge in behalf of your county, please sign and forward the enclosed postal card. If your engagements do not permit you to accept this position, will you kindly forward to the Board the name of some citizen whom you will suggest, and who could probably serve?"

[Signed by the Secretary of Board of Public Charities.]

Having secured the services of the desired number of citizens, blanks containing the following questions relative to the "homes for aged and infirm" (formerly "poor-houses") and work-houses and jails are forwarded them to be properly filled out and returned to the Secretary of the Board, as indicated in the notice of instructions they receive:

1. Please state the situation of the "Home for the Aged and Infirm," and how far from the county-seat

2. Give the number of buildings, size of each, and state of what material built.

3. How many rooms in each building?

4. How are the buildings ventilated?

5. What are the means of protection?

6. How is the supply of water furnished for drinking, cooking and bathing purposes?

7. How are the buildings heated in winter?

8. How many inmates can be comfortably accommodated with the present arrangements?

9. How many are now in the care of the institution?

10. How many of these are able to work?

11. How many are helpless or bed-ridden?

12. How many are in voluntary confinement?

[*Note.*—If any work-house is attached to the Home, please give all particulars that would correspond with these questions under "Remarks," or on a separate sheet.]

13. Please give the names of such persons belonging to the Home as are under involuntary confinement, stating if insane, imbecile, or idiotic, here or on list attached to this report.

14. What is the amount and kind of food allowed daily to each inmate?

15. What is the average weekly cost of maintenance of each inmate?

[*Note.*—If this question cannot be answered, for any reason,

please give the aggregate cost annually to the county for three years past, with the average number accommodated, if practicable ]

16. State if any veteran soldier is an inmate of the County Home, and if so, please give name, regiment and company, and whether in receipt of pension or not.

[*Note.*—This is not for publicity, but the information is requested for the benefit of the veterans.]

17. What is the name and postoffice address of the keeper or overseer of the Home ?

18. What pay does he receive, and is his compensation in money altogether, or are there any perquisites ?

19. Is he industrious, sober and discreet ?

20. What is the name and address of the physician who attends the inmates ?

21. What does he receive for his services ?

22. How many inmates were in the Home on December 1, 1891 ?

23. How many admitted since that time up to March 1, 1892 ?

24. How many deaths during that period, and from what diseases ?

25. How many discharges from other causes ?

26. How many inmates assist in any part of the farm or garden work ?

27. How many could be employed in any light work for their comfort or pleasurable occupation and the benefit of the Home ?

28. If any could do some light work, such as the making of small articles, what do you recommend, and what amount of means, if any, would be required to start and maintain the same ?

29. Give a general description of the premises. Are they well arranged, neat and in good condition, or dilapidated and out of repair ?

30. How many acres of land belong to the Home (formerly known as the "Poor-House Tract"), and what is the quality of the land ?

31. How much is in cultivation, and what stock is kept ?

32. What crops are raised on the land, and how are the products used ?

33. What vegetables are raised for summer and winter use ?

34. Are houses and yards protected by shade-trees ?

35. Are the ashes and manures saved and used in improving the land, or any green crop of peas or clover turned under for that purpose ?

36. Is any provision made for religious services on Sunday, or any other day? If so, to what extent, and by whom?

37. Are there any children in the Home? If so, why? If any of these are capable of taking care of themselves now, or soon? have any steps been taken to assist them, or to place them in orphan asylums, or private homes?

38. Has any punishment been afflicted upon any inmate since admission? If so, upon whom? By whom? What punishment, and for what offence?

39. Is there any system of out-door relief to the poor for support in your county?

40. If so, how many persons are thus supported, and at what average rate?

Remarks.

[Left blank for any additional information.]

QUESTIONS CONCERNING PRISONERS AND PRISONS.

1. Of what material is your county prison built?

2. Is it fire-proof?

3. What means are there for extinguishing fire?

4. What is the size of the building?

5. How many stories high, and how many rooms or cells for prisoners?

6. State the size of the rooms or cells and number placed in each.

7. Are the windows closed or in any way obstructed? If so, how and why?

8. Are there any means of ventilation except by the windows?

9. What are the means of heating the building in winter?

10. Are the prisoners subject to much suffering in cold weather?

11. What amount of bedding and covering is allowed, and is furnished to each prisoner?

12. What part of the prison is occupied by the male, and what part by the female, prisoners?

13. How often is cool drinking-water furnished during the day?

14. What is the daily allowance of food to each prisoner?

15. What means are used to preserve the cleanliness of the jail?

16. What disposition is made of the excrement?

17. Is the prison free of vermin? If not, what steps have been taken to secure that result?

18. Has punishment been inflicted on any prisoner since confinement? If so, upon whom? By whom and by what authority? What punishment and for what offence?

19. Are the prisoners allowed to have intoxicating liquors?

20. Do the prisoners receive any ministerial services on Sunday, or at any other time?

21. Please give the number, color and sex of prisoners now in confinement; also offence, and date of confinement, and term if sentenced.

22. Please give the number, color and sex and offence of all prisoners under confinement from December 1st, 1891, to March 1st, 1892.

23. How many deaths during the period above named, and from what cause?

Remarks.

[Left blank for any additional information.]

Unfortunately for the ultimate purposes desired, I am informed that there is a feeling of indifference, if not antagonism, manifested by some of the County Commissioners and Superintendents of Health, upon the grounds that these "vigilant committees" of citizens, if I may be pardoned for terming them such, are in a measure usurping their work and transcending their authority. Now, never was there a graver mistake made, for the sole purpose and object of these citizens is to ascertain all the facts relative to the care and management of the charitable and penal institutions, and act in conjunction with the regular authorities in bringing about a better condition of affairs generally, and abolishing any and all irregularities that may be found to exist. It is always known by the superintendents of these institutions when they may expect a visit from a committee of the Grand Jury or the County Commissioners, and any abuses or irregularities, if such did really exist, could be easily suppressed or hidden from view during these short, superficial, and oftentimes imperfect, examinations; whereas this tendency is in a great measure overcome by the unexpected and assiduous visits from one or more of these officially appointed citizens.

In many of our county institutions a comparatively good system of management prevails, the patients are supplied with proper diet suitable clothing, but there are many, and I fear they are in the ascendancy, where nothing but the poorest and coarsest food is

provided, and almost no attention paid to its preparation and variation, and the inmates clothed with the scantiest of garments consistent with decency and civilization.

In this connection it seems to me greater good could be accomplished and better results obtained, if more care was paid to these vital necessities. Another matter deserving of great attention is the personal and general hygiene of these unfortunate beings, for if "cleanliness be next to Godliness," then there are many of them, I fear, who, if they ever possessed any of the divine in their nature, cannot now lay claim to that attribute.

In visiting a county home on one occasion, I was very forcibly struck with one of the inmates whose appearance was repelling from the large amount of "real estate" he carried on his person, and propounding a question as to the frequency of his bathing, he he informed me that "he washed about once a year." And this, too, not far from many of our homes, and in this century of enlightenment and civilization. Gentlemen, is there not great need for improvement and a systematic supervision in some of our institutions? In a home of one of our western counties there is confined a lunatic, "harmless and incurable," who, under the influence of her delusions, is guilty of incoherent actions and language, and to correct this woman she is whipped or thrashed by the authorities of the place as though responsible for her actions caused by a diseased mind. This case, I am gratified to say, was brought to the knowledge of the Board of Public Charities through a member of the "Citizen Committee," and steps were immediately taken to prevent the further perpetration of this outrage upon an unfortunate woman devoid of reason; and yet, I dare say, 'twas done through ignorance and not with the intention of maltreatment or cruelty. Other incidents might be cited showing the necessity for better and more intelligent management of these institutions, but is not necessary.

Before concluding this subject there is a suggestion which I wish to make relative to the county crimnals and their employmen on the farms in connection with the county homes.

All of us recognize the necessity for the establishment of work-houses in every county within our State, and my suggestion would be this, viz: Have each work-house established in close proximity to the "Home for the Aged and Infirm," both under the manage-

ment and supervision of one superintendent, and let all criminals sentenced to terms of imprisonment for ten years and under, be sent to these county work houses, and under the security of guards, made to labor on these farms, and thus be a source of revenue to the county, in that their labors support the county poor, and in a great measure make the work-house and home self-sustaining.

Several counties within the State have established work-houses and derive a great deal of service from the labors of their inmates, many of the convicts being used in improving public roads, but it seems to me preferable that they should be made to work on the farms, and thus be self-sustaining and support the poor and afflicted inmates of the homes, a great majority, if not all of them, being unable to do manual labor, save of the easiest kind.

In conclusion, I shall indeed feel gratified if these incidental observations shall bring more forcibly to your minds as physicians the necessity for improvement in the management of these institutions, and elicit your hearty coöperation and influence in behalf of any agency which has for its ultimate purpose the accomplishment of this object.

# REPORT ON THE PRACTICE OF MEDICINE.

By J. W. McNeill, M.D, Chairman, Fayetteville.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

*Mr. President and Gentlemen of the Medical Society of the State of North Carolina:*

My first duty is to express my very high appreciation of the honor conferred upon me in being selected as Chairman of so important a Section as that of the Practice of Medicine. This branch of our study comprehends everything pertaining to the knowledge and cure of disease, and is the focus, or concentration of all the other branches of study. The Practice of Medicine extends in every direction, to the very boundaries of human imperfections and sufferings. And the practitioner must ever bear in mind that the great aim of his calling is not merely to learn the nature of the human frame or organs, or to know the normal functions of these, or the morbid conditions which affect them, or alone the remedies to be used in practice, but the chief object is to prevent, alleviate and cure diseases.

Forty years ago, when Dr. Williams announced that his practice would be restricted to the treatment of eye and ear diseases, it needed courage to face the universal condemnation and denunciation of the medical profession. Now, no organ of the living body is deemed so small as not to need the laborious work of well-trained investigators, who may, by diligent application, find out some of the many hidden wonders of creation. This has made the body of knowledge under the term Practice of Medicine so copious and complex that it requires diversity of cultivation that it may be fully mastered—no one mind, however endowed, being equal to the task of compassing all that has been ascertained by the work of the specialists.

With these facts before us, it could hardly be expected that, in my notes on the Practice of Medicine I could more than give a general outline and touch upon only a few special points.

The Practice of Medicine is far from perfect: the fact that each one has his own method indicates instability and doubt. For example, Professor W. A. Hammond, in the treatment of weak heart,

recommends that large doses of digitalis be administered—2-drachm doses of the infusion at first, and if we desire to obtain the fullest possible benefit from its use, it must be given in increasing doses. He does not believe in what is called the cumulative effect of this drug.

Professor A. L. Loomis, dwelling upon the use of this drug, says that there is no other drug which requires so much skill in its administration. The best results are obtained from small doses; for example, only 1 or 2 drops of the tincture; if more be given, only a single dose at bed-time. That the ingestion of more digitalis than is requisite to overcome the insufficiency does positive harm. With the leading lights in the medical profession, in this nineteenth century, differing so widely in the treatment of diseases and the use of old remedies, it is evident that every practioner must draw his own conclusions as to the real value of remedies and their mode of administration. It is not surprising, the tendency of the present day to therapeutical nihilism, after physicians have seen the danger in following the leadership of unsafe guides in their ill-directed and reckless medication. The influence of some of our most prominent medical thinkers has been opposed to the value of medicines in the treatment of disease. But the true student of the practice of medicine has been able from his elevated and broad standpoint to draw many valuable deductions from these things, and one of the most valuable is, that man is greater than his disease, and in administering to him a living being is under treatment, and not simply a disease to contend with and subdue. The thorough thinking practitioner can see over and beyond the heroic work of the reckless leader, and also of those whose tendency is to do nothing, leaving everything absolutely to nature. And as a balance-wheel he has regulated all the machinery of the practice of medicine and been the cause of a steady movement forward of the wheels of progress.

The bacteriologists have been at work. Special micro-organisms have been more thoroughly investigated. Koch's method for the cure of tuberculosis had our hopes raised to a high pitch a year ago; the introduction of this method we had hoped might mark a new era in the advance of bacteriology and the treatment of disease, but within the last year there have been no new developments in his plan of fighting the bacilli of tuberculosis.

The typhoid fever bacillus has been investigated by Janowski. He has studied the effect upon this organism of sunlight, various temperatures and nutrient media. He has not, however, succeeded as yet in finding any diagnostic signs by which this organism can be differentiated.

Drs. Espine and Marignac have presented an interesting article upon the bacillus of diphtheria. They found the bacillus of Hoeffler in all cases of this disease. Brieger and Fraenkel have demonstrated the existence of a ptomaine produced by the bacillus of diphtheria. A change of opinion has of late taken place as to the nature of pneumonia, which is now almost universally regarded as a specific infectious disease, depending upon a micro-organism. The diplococcus pneumonia of Fraenkel is the most constant organism in lobar pneumonia, and is now believed by many competent authorities to be the specific agent of the disease.

While the etiology of all diseases has been rendered more complete and more easily understood by the work of the bacteriologist, the therapeutist has not been idle in the study of antisepsis. As these special organized germs have been found to take an essential part in the diseased process, if not to produce them, the group of remedies which are destructive to the germ without injuring the vitality of the human being, have been more thoroughly investigated and understood. Though specifics in medicine, even in this group, are as yet very few.

B. F. Ackley has used the biniodide of mercury with asserted success in the treatment of diphtheria and typhoid fever, and believes the drug to be an antiseptic and germicide of great value. For diphtheria he has employed this formula: Biniodide of mercury, grain ij, saccharated pepsin ʒ iij. The powder is used as a local solvent and germicide, placing a quantity of it, proportionate to the age of the patient and the severity of the symptoms, on the tongue every hour. In this way the drug was found to have a germicidal effect on the membrane, hastening solution of the exudation even in severe cases; the symptoms subsiding in the course of twenty four hours. In cases of typhoid fever, especially if the treatment was instituted early, the drug has produced such satisfactory results that in no case has a patient been confined to his bed for a longer period than two weeks. For the treatment of this disease a mixture of 1-10th to 1-12th gr. and 10

grains of saccharated pepsin was given every four or six hours. C R. Illingworth has been able to abort scarlet fever in five instances by the internal and external use of the biniodide of mercury.

The preparations of mercury still retain the lead as therapeutical agents in destroying the germ peculiar to any disease after it has once taken hold. The intra-tracheal injections of creasoted oil has been thoroughly investigated by Dor. His conclusions are that a strength of 1 to 20 is admirably borne by the majority of patients. Thirty-one minims may be injected twice a day. No complications provoked by the use of the injections were ever observed The patients never had hæmoptysis, fever or stitch in the side, which could be attributed to the medicine, and digestive troubles were not produced analogous to those seen when creasote is administered internally. Olive oil, sterilized by boiling, should be employed as an excipient. It is possible to determine whether the oil has reached the diseased part of the lung by the production of bubbling râles. In the majority of cases under the influence of this treatment expectoration diminished, pain in the side disappeared, appetite returned and weight increased. It is principally tuberculous patients in the first or second stage who are benefited by the treatment; for patients with numerous cavities it would be much better to choose an antiseptic more powerful than creasote in treating by this method—camphorated naphthol appears to answer this purpose.

The specific action of the micro-organisms in disease is now attributed, in large part, to the formation of ptomaine, and the whole question of immunity and protection is now being worked out in this direction, a special stimulus having been given of late in the discovery by Hankin of the so-called defensive alkaloids. The Klemperer brothers, by the subcutaneous injections of the filtered bouillon cultures, or by the injection of the glycerine extract, found that immunity from pneumonia was produced, and that the blood serum of a subject having this power of immunity, when injected subcutaneously into a patient actually suffering from the disease, very promising results were obtained.

The subject of fever and antipyresis has been ventilated considerably within the last year. Cantani claims that fever is an essential, and, to a certain degree, a beneficial reaction to acute disease. This reaction is necessary to bring about cure. The temperature alone is not a measure of the gravity of the disease. A

moderate degree of fever may be due to a want of reactive power on the part of the organism, a high degree to the energy with which the organism defends itself against the invasion of the disease. The fever itself, therefore, has a favorable effect, and may be of use in various ways—by diminishing the vitality or virulence of the living causes of disease, and by raising the temperature of the tissues and of the blood, by altering the nutritive soil in the tissues, and rendering it less favorable for the growth and development of the germ of disease, in fact, by sterilizing the body. The proper remedies for fever should be such as act on the cause of the disease. In this way quinine acts in malaria and mercury in syphilis. The antipyretic remedies, as antipyrin, have no special action on the cause of fever. They lower temperature by increasing radiation of heat from the body, and diminish heat-production. They do harm by interrupting the course of the fever, diminishing the means of defense of the human organism, for a diminution in the production of heat is equivalent to a diminution of the vitality of the human organism and of the power of resistance. There are, therefore, no general antipyretics. The most that can be done is to diminish the accumulation of heat in the febrile body without lowering the production of heat. To this effect the cold bath, the cold pack, cold douches, the administration of large quantities of cold water, either by the mouth or enema, are recommended.

Maragliano records the results of a series of investigations as to the state of the vessels in fever and in antipyresis. Kairin, antipyrin, thallin, salts of quinine and salicylate of sodium were used in the experiments. It was determined that antipyretics in general caused vascular dilatation, which continued in the case of fever as long as the influence of the remedy continued. Osler says that antipyrin, antifebrin and phenacetin have had a thorough trial, and in many forms of fever, although they still have their advocates, the general opinion of clinical physicians seems decidedly against their systematic employment.

Venesection has to some extent occupied the attention of physicians. The reproach of Van Helmont, that "A bloody Moloch presides in the chair of medicine," cannot be brought against the present generation of physicians. During the first of this century the profession bled too much, but during the last decades we have certainly bled too little. Osler, in his recent practice, says pneu-

monia is one of the diseases in which a timely venesection may save life. Richardson records the case of a woman with symptoms of peritonitis and a temperature of 109° F., in which he withdrew 22 ounces of blood from a vein of the arm after antipyretic remedies had been freely administered without avail. The temperature fell to 101° F., and for a time the urgent symptoms were relieved. The improvement continued for about four hours, when, despite assiduous treatment, the temperature again rose to 109° F., and death soon followed. The clinical lesson to be drawn from these observations is that, while the removal of blood, as well as the use of the ordinary antipyretics, have the effect of reducing the febrile heat, they do not control the process of zymosis on which the febrile condition depends.

In enfeebled conditions of the heart and in debilitated conditions generally nitro-glycerine has been shown to be a wonderful remedy. Its more lasting effect over that of nitrite of amyl renders it a more reliable remedy in extremely enfeebled conditions. C. D. Palmer asserts that he has cured a case of heart trouble with the drug. The patient had a fatty organ, whose action was irregular and feeble, but there was no valvular lesion. A drop of a 1 p. c. solution, three times a day, was administered, and gave immediate relief. J. N. Cleveland reports the case of a woman 65 years of age with an irregular heart, very bad general condition, and almost dying from uræmic poisoning and cardiac failure, relieved by the administration of drop doses every hour of a 1 p. c. solution of nitro-glycerine. A case of asphyxia from gas, successfully treated by hypodermic injections of nitro-glycerine, has been reported by C. W. Goss. It was an extreme case. Hypodermic injections of 1-100 gr. were given every ten minutes. Half a minute after the first dose the pulse began to be noticed at the wrist and grew gradually stronger, and at the end of fifteen minutes consciousness had returned and the patient expressed himself as being quite well. The deduction can properly be drawn from cases of this kind that the prime medication in such cases is to establish the action of the heart, no artificial respiration being necessary, as the breathing always improves with the increase in volume of the pulse.

The recent recurrence of influenza has developed considerable discussion in the literature of the past year. The study of the meteorological conditions under which it prevailed has strengthened

the theory that humidity of the atmosphere has much to do with its development. Maurel emphasizes the preference of influenza for low countries and the valleys of large rivers. Kowalki describes influenza as a specific disease, occurring under conditions constantly the same, due to atmospheric influences and complicated by the pathogenic germs at hand. No special new forms of bacteria were discovered which there is any reason to believe have anything to do with causing the disease. There is no recognized specific against the disease. Quinine more nearly approaches this position than any other remedy. Eichhorst, with subcutaneous injections of pilocarpine, had strikingly speedy and successful results. He says that pyrexia may be met by cold sponging, cold affusion, the cold pack or the cold bath. Antipyrin, antifebrin and kindred remedies were largely used during the epidemic. Giovanni, however, wisely warns against the use of the ordinary antipyretics in the treatment of influenza because, though they may lower the temperature, they debilitate the vital powers of the patient. He recommends rather tincture of strophanthus with milk and brandy, and in grave cases inhalations of oxygen and subcutaneous injections of strychnine.

Hypnotism of late has been extensively used and experimented with in many nervous conditions. It will probably be more and more recognized by the medical profession in the future as the horizon of scientific investigations in the psychical realm broadens

In conclusion, I would suggest, after reviewing the field of matter embraced under the head of The Practice of Medicine, that each practitioner, from his own experience in the treatment of disease, must draw his own conclusions as to the real value of remedies, and be slow to adopt every new wind of doctrine that comes to us, not to follow, unthoughtedly, the rush of the tide of popular practice; but, being founded on true principles, to study the utility of drugs when rightly administered, and, above all things, to find the limits of their utility, for he who is unmindful of the injury done by reckless medication is on as unsafe ground as the most pronounced therapeutical nihilist. Also that the study of the materials of Nature and her forces be as thoroughly executed as that of the study of Materia Medica.

# A FEW PLAIN WORDS ON GLAUCOMA.

By Richard H. Lewis, M.D., Surgeon for Diseases of the Eye, Ear, Throat and Nose to St. John's Hospital, Raleigh, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

The relatively large number of cases of absolute and hopeless blindness from neglected glaucoma coming under my observation has suggested to me the propriety of making an effort to do something in the way of prevention of such sad occurrences. Blindness from this cause is peculiarly deplorable for the reason that the afflicted one is not only cut off from all perception of light even—a deprivation that only the blind who retain the power of discriminating between day and night can fully appreciate—but is a sufferer in many instances from repeated and long-continued attacks of severest pain. So that, if, by what I shall have to say, I prove to be the indirect means of saving not more than one person from such a fate, I shall feel that this imposition on your patience was not without justification.

Before going further, I wish it to be distinctly understood that in using the expression "neglected glaucoma" I did not mean to indicate an intention to lecture my brethren of the general profession, because, as a matter of fact, I believe that, in most instances, the patient is to blame. But I cannot in candor say that it is always the patient's neglect. It must be admitted that, sometimes, the failure of the physician first consulted to make a correct diagnosis, which, it should be said, is not always an easy matter, consigns a curable case to hopeless and life-long darkness. Consequently, since the best informed amongst us is liable to become more or less rusty in his knowledge of a disease that is so rarely brought to his attention as the one we have under consideration, it would not be amiss to emphasize a few salient points bearing on its diagnosis and early management. I shall not attempt to draw a complete and finished picture of the malady, filled in with minute details and nice touches, but a simple sketch, made with a few broad strokes, representing only the essential features manifest to the ordinary medical observer. And so, a citation of the ophthalmoscopic signs, and all discussion of its etiology and pathology, as well as the considera-

tion of whatever is exceptional, will be purposely omitted as not coming within the limited scope of this paper.

For our purpose it would be best to consider only the three ordinary forms of the simple or chronic, the subacute and acute inflammatory. The symptoms common to all forms are, failure of sight, increased tension or hardness of the eye-ball, dilated pupil, and contraction of the visual field, especially towards the nose. The most characteristic of these is increased tension, which is to be ascertained by gently palpating the globe through the upper lid as the patient looks at his feet, very much in the same way as for pus in a suspected abscess. If not familiar with the feeling of the normal eye, a comparison should be made with the other eye, if unaffected, or with the examiner's own. The next most important symptom is dilatation of the pupil, particularly if it does not respond to light. A fact of great assistance, in a negative way, in helping to a correct diagnosis, is that the subject of glaucoma is almost sure to be past middle age, or old enough to wear spectacles for reading. And the first thing one suffering with chronic glaucoma, as a rule, notices, is that his spectacles do not suit him as well as they once did, and that he cannot find any that will bring his sight up to the original standard. The need for frequent changes in his glasses is often a premonitory sign. He will then complain that at times there is a fog or haze over his sight, lasting for a greater or less period, and then passing off entirely for awhile, only, however, to return again at shorter intervals, denser in character and hanging over him longer. While this fog is present he will tell you, usually, that when he looks at a lamp or other light it seems to be surrounded by colored rings, haloes or rainbows—a phenomenon only found in glaucoma, except when produced by mucus on the cornea, which can be easily removed by winking. Pain, if present at all, will be slight and occasional. A superficial inspection of the eye will show the sclerotic white, the cornea clear and bright, and, in a word, the eye perfectly normal in appearance, save a slight dilatation and some sluggishness of the pupil. The tension will probably be a little increased, and the field of vision somewhat narrowed.

In the subacute form, after, in all likelihood, a few premonitory attacks embodying the symptoms just enumerated as belonging to the chronic, there will be a more rapid failure of sight—pain in, but chiefly around, the eye, over the brow, in the temple, down the

side of the nose, and, sometimes, all over that side of the head, will be complained of—the globe will be very distinctly hard—there will be some redness of the ball, of a rather dusky character, most marked just behind the sclero-corneal junction—the cornea will look rather steamy—the anterior chamber will generally appear shallow, the pupil will be dilated and probably oval in shape, and, instead of being black, it will be of a yellowish green color.

The acute form is simply an exaggeration of the subacute. The onset is more rapid—the tension greater—the pain more severe—the redness more intense, in some instances extending to the whole conjunctiva with swelling of the lids—occasionally there is photophobia—the pupil is more widely dilated, though not necessarily *ad maximum*, and fixed—the cornea looks more hazy and is insensible to the touch of a light, soft object, as a feather or wisp of tissue-paper—and sometimes there is fever with nausea and vomiting. Inasmuch as the mistake has been made, I will take the liberty of saying that, should you have a case of supposed remittent fever, who, at the same time, has a bad eye, do not be satisfied with your diagnosis until all doubt as to the nature of the ocular trouble is removed, and *do not wait for him to recover from the fever, or "bilious attack," before attending to his eye.*

The diseases with which inflammatory glaucoma might be confounded are, iritis, conjunctivitis, cataract, inflammation of the cornea and neuralgia. There are many resemblances between acute iritis and acute glaucoma, and there are many differences, but the similar features, unfortunately, are of a coarser and more easily recognized character than the dissimilar. In order to avoid confusion, I will rest the differential diagnosis on two symptoms, or signs, only—the state of the tension and of the pupil. While in iritis the tension is sometimes slightly increased, it amounts to practically nothing, but in glaucoma it is the pathognomonic symptom, and in the inflammatory form—with which alone iritis could be confounded—it is almost certain to be very distinct and pronounced. The pupil in iritis, if changed at all in size, is smaller than the normal, but in glaucoma it is almost invariably larger than natural, and, in an immense majority of cases, very much larger. If in doubt, compare with sound eye, should there be one, or with a healthy eye in another individual of about the same age and in the same light. Never fail, therefore, to examine more carefully the

pupil in every red eye belonging to an elderly person, and particularly if that eye be free from a muco-purulent or purulent discharge—the presence of this discharge being the characteristic symptom of conjunctivitis. In conjunctivitis the redness of the globe increases from before backward, while in glaucoma, as well as in iritis, just the reverse is true. In conjunctivitis, too, the sight is scarcely, if at all, impaired—in glaucoma it is apt to be very bad.

The change in the color of the pupil, together with the dimness of sight, is suggestive of cataract; but the fact that the loss of sight has been more or less rapid, the signs of inflammation, congestion and pain nearly always present, certainly in the severer forms, and especially the dilated and fixed pupil, signify plainly that the case is not one of simple cataract; while, if the tension be increased, in addition to the above, it settles the question, proving that it is not only not cataract, but is glaucoma.

The only symptom of glaucoma calling to mind keratitis is the haziness of the cornea, but it is slight and generally and evenly diffused, not patchy, as it always is in inflammations of the cornea. The opacity in interstitial keratitis, which, by the way, it should be remembered, is a disease of childhood, although diffused, is denser in some parts than others—the cloud has thin places in it. Again, in affections of the cornea, photophobia and lachrymation are prominent symptoms—in glaucoma they are secondary, if not altogether wanting.

Although in neuralgia of the ophthalmic branch of the trifacial lachrymation with redness of the conjunctiva and occasionally photophobia as well as sensations of dazzling light and colors are not infrequently present, the differential diagnosis is not difficult, even when they are. In the neuralgic affection vision is practically unimpaired, the pupil is normal in size or smaller than usual, the tension is not increased and the sensations of light are subjective and different from the rings or haloes of glaucoma that appear to surround the lamp or other point of light looked at.

It is of vital importance that glaucoma and iritis should not be confounded with one another, for the remedy appropriate to each is generally positively injurious to the other, in some instances actually exciting an attack in a healthy eye predisposed to that particular affection. If the pupil be carefully examined and its size noted the mistake in the application of remedies could not well be made, for it is the most elementary common-sense, it seems

to me, for any one using remedies directed to the pupil to attempt to contract a pupil that is too large and to dilate one that is too small. Attention to this simple rule would insure practically the use of a myotic, eserine sulphate or pilocarpine muriate, in glaucoma, and a mydriatic, atropia sulphate, in iritis.

Having made the diagnosis of glaucoma its early management is very simple. It consists in the *immediate* use locally of a myotic, sulphate of eserine, a drop or two of a solution of a strength varying from one to four grains to the ounce, or pilocarpine of double that strength, in the eye every hour until the pupil contracts, pain is relieved and sight improved, and continued afterwards three or four times a day until the trouble has passed off. Hot applications, purgatives, hypodermic injections of pilocarpine, etc., are sometimes helpful, but such uncertain palliatives should never be depended on, except only when nothing better can be done. Should the pupil not respond to the myotic and a marked alleviation of the symptoms occur in twenty-four hours, or if its use increase the pain and inflammation, as it sometimes does, an iridectomy or sclerotomy, preferably the former, in my opinion, should be done at the earliest possible moment. Acute glaucoma is a disease that allows no dallying in its treatment—the price of sight is *promptness*—and, eserine or pilocarpine failing, the knife is the only hope.

My experience with eserine, while very much mixed, has been, on the whole, encouraging. One case is sufficiently striking to deserve reporting, and the following is a brief account of it :

Mrs. N. J. M., æt 33, was sent to me by my friend Dr. Thomas F. Wood six years ago. At the time of her visit the left eye was entirely blind, presenting the symptoms of absolute glaucoma with scleral staphyloma. She stated that the trouble began in that eye eighteen months before. The right eye was normal in every respect, including acuteness of sight and amplitude of the field of vision, except that the anterior chamber was too shallow, the pupil plainly larger than it ought to have been, and the tension slightly increased. But she had had some premonitions similar to those leading up to the disastrous consequences shown in the left eye, and she was wise enough to seek advice in time. She was given a solution of eserine, reënforced with boracic acid to preserve it, instructed as to its use, and thoroughly impressed with the vital importance of returning immediately for operation should the eserine fail. It worked like

a charm, and for three years sight continued fully up to the standard, but a time came when it did fail, and, true to instructions, she promptly returned for further advice. Her good eye then presented all the symptoms of subacute inflammatory glaucoma, and vision was reduced to an ability to count fingers at a few feet. Thinking that her drops might have lost their efficacy from age, a fresh two-grain solution of eserine was tried before resorting to operation, and the attack was quickly relieved and sight completely restored. Since then her attacks, returning as they have from the beginning in a mild form, usually two or three times a week, have been effectually aborted by the eserine, and when last seen, eight months ago, her eye was in excellent condition with one serious exception, namely, a severe attack of follicular conjunctivitis. Whether the fungoid formations in old solutions that had undergone decomposition excited the inflammation, or it was the result of the long-continued use of the alkaloid I do not know; not improbably the latter, however, as other observers have noticed the same condition after prolonged use of eserine. The effect of atropia on this line is familiar to all, and the persistent instillation of cocaine has been known to cause conjunctivitis granulosa (follicular?) In a letter written just one week ago to-day she says: "My eye improved rapidly after seeing you last, the attacks not averaging more than one once in three weeks up to the present. Within a day or two it looks a little inflamed, but am not suffering very much. Have not had an attack in nearly a month. Can read No. XX at the distance of twenty feet. I continue to use one drop once every day; also use it when I have an attack (more freely she means). P. S.—I forgot to tell you I have had a few times of frequent attacks since I saw you." This case is interesting and instructive for several reasons: the comparative youth of the patient (33), the great frequency of the attacks, two or three a week most of the time—as confirming the opinion that the long-continued employment of eserine will excite the follicular form of conjunctivitis—but chiefly as showing the efficacy of that drug in the treatment of this most dangerous disease of the eye, and that, too, when used once every day, or oftener, for so long a period as six years.* But it

*Just after reading this paper I had the gratification of seeing Mrs. M. and finding her eye in excellent condition, notwithstanding a pretty sharp attack the day before—the first in a month. Save a slight shal-

must be borne in mind that this is a very exceptional case, and that in many instances eserine is entirely without effect, and in some positively injurious. Still it has been known to finally cure some cases, and is, unquestionably, of very great value as a palliative, often relieving the urgent symptoms and saving the eye until more radical treatment can be obtained. Indeed, eserine and pilocarpine, it may be said, are the only medical remedies for glaucoma. And so, every practitioner—certainly those not prepared to do an iridectomy—should make it a point to see to it that either some druggist within reach keeps them, or that he has a small quantity of one or the other of them in his own medicine chest. As eserine deliquesces very easily, it would probably be best to keep it in hermetically sealed glass tubes or in the more elegant form of gelatine discs. Before leaving this subject it is proper for me to add that I have never had any personal experience with pilocarpine in glaucoma, because I have always thought it safest to rely on eserine; but, in the opinion of some it is, if used in double strength, just as effective, and it certainly should be tried if the eserine cannot be obtained.

As a corollary to the above I would say: Every person old enough to wear spectacles, complaining of an impairment of sight not remediable by a change of glasses, should seek medical advice. And especially should this be done if he notices variations in vision, sight being at one time hazy and at another clear, or if he has observed the haloes or rainbows around the lamp. The fog in

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lowness of the anterior chamber it was normal in every respect—vision up to the standard and the optic disc not in the least cupped. The follicular conjunctivitis present when seen eight months before had disappeared under the use of a simple borax lotion prescribed at that time in spite of the continued instillation—daily, if not more frequently—of the eserine collyrium. From this fact I am confident that the conjunctivitis was excited not so much by the long-continued use of the alkaloid as by the impurities resulting from degenerative changes in the solution. I questioned her again as to the character of the frequent attacks, and she stated that they were accompanied by dimness of sight, dilated pupil, hardness of the globe, as well as she could ascertain, and the haloes around the lamp, and were therefore truly glaucomatous. I shall try to wean the eye from the myotic by substituting pilocarpine, the weaker of the two, for the eserine, and gradually diminishing the strength of that. LATER: Pilocarpine was tried, but did not act as well as eserine.

glaucoma generally lifts entirely at times, or it rapidly becomes dense, while in cataract it is always present and deepens very slowly. But just here comes in the main difficulty alluded to in the beginning, and that is, that the party with the cloud of blindness hanging over his life will not seek advice until it is too late, deluding himself with the theory that it is merely a little "cold in the eye," and satisfying himself with "alum curds," rotten apples and such other—"rot."

Fortunately glaucoma rarely ever attacks both eyes at the same time, and consequently it is more than probable that some physician will be seen, if not for that, for some other trouble, before the second eye is involved. If so, and the first eye should be found to have been lost from that disease, he should feel it to be his imperative duty to impress upon the patient, as forcibly as possible, the fact that the same trouble is practically sure to occur sooner or later in the good eye, to insist upon his seeking medical advice upon the very first signal of danger, and to warn him of the fearful consequences of *delay*. Having lost an eye he will be more ready to listen to advice. But there is a rock that sometimes shows in this latitude on which the medical mariner, inexperienced in sailing ocular seas is liable to make shipwreck, and we must mark it plainly on our chart. That rock is secondary cataract—cataract coming after, and consequent upon, the glaucoma. The danger consists in attributing the blindness to the cataract, instead of to the glaucoma, its real cause, thereby permitting the patient to sink into hopeless darkness under the false impression that his trouble is one that can be almost surely relieved, and at any time, after he has become completely blind, that may best suit his convenience. It is true that in most instances the second eye has been ruined before the first becomes cataractous, but it is a danger nevertheless. We will mark it by calling attention to the fact that in cataract secondary to glaucoma the pupil is dilated and does not contract on exposure to bright light, the perception of light indeed being generally lost at that stage of the disease, while, in simple idiopathic, or primary cataract, the pupil is normal, or, if slightly dilated, quickly and promptly responds to variations in the amount of light, the perception of which is good. This would be sufficient to base an opinion upon, but hardness of the globe, enlarged tortuous vessels on its surface and the history of the case would be confirmatory.

Another reason for being careful to make the distinction between ordinary senile cataract and that consequent upon glaucoma is that, by so doing, the patient may be saved, perhaps, a long and expensive journey with bitter disappointment at the end of it.

How to overcome the main difficulty, namely, the carelessness and indifference of the person most interested, is, I confess, a question hard of solution. The only thing I can suggest is for the profession to attempt the education of the people—planting a seed here and there—by calling attention whenever occasion may arise to the fact that any elderly person with marked impairment of sight beyond the aid of glasses and accompanied by any symptoms whatsoever other than a very slowly increasing dimness, shows a reckless disregard of one of God's choicest blessings if he do not promptly obtain the opinion of his physician as to its nature.

# ANNUAL ESSAY.

## The Ideal in Medicine.

By Oscar McMullen, M.D., Elizabeth City, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

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*Mr. President and Gentlemen of the Medical Society of the State of North Carolina:*

I am impressed with the belief that, had your Nominating Committee been guided more by considerations of your entertainment and instruction upon this occasion than by the deceptive glamour and halcyon days of college chumship, the mantle of this prophecy would have fallen upon more capable shoulders; still, regarding the Medical Society of North Carolina with an affection and fealty sprung, Minerva-like, into existence with the growth of adult life and ready for duty, there is no honor, however slight, it may bring; there is no labor, however difficult, it may impose, I would not receive with avidity and perform to the full measure of my capability. Dearer to me than the exaltation of physical health, dearer than mental repose, fairer and more to be desired than the gems of Oude, are the smallest honors which it gives. As soon would I think of refusing the bendictions of a beloved parent as of thrusting back into the face of this Society, our guide in all that is highest and best in the science and art and sentiment of medicine, the duties which it imposes or the emoluments which it offers.

The subject selected is:

### THE IDEAL IN MEDICINE.

I have been induced to such a selection instead of a subject purely and technically medical, since the Annual Essay is generally read before a mixed audience, and from the further consideration that the professional part of my hearers have had, or will have, before this Society adjourns, medicine, surgery *et id omne genus, ad nauseam.*

In the elaboration of the title there arises two ideas for consideration:

1. The ideal doctor.
2. The ideal patient.

And however much I may feel my conscious power expanding within me for reading instruction to the laity, I must confess, when I look out over my audience and see the faces of many of my associates beautiful with the graceful lines of searching thought, and heads silvered with the workings of age and experience, I feel the temerity of my endeavor, and did I not recognize the truth of the devil's remark to Mother Eve—

"Yet shapes uncouth, that dully stroll about with awkwardness,
May know *some* truth and tell it,
So that a fairer and more learned one, by taking heed,
May gain advantages,"

even now I would desist from the undertaking.

There is no vocation beneath the sun more exalted in its character and more exacting in its demands than that of the physician's life, except, perhaps, it be the calling of that one who tells the story of the "strangely sweet teachings of Jesus." The very nature of the object upon which this vocation is exerted, the mental and material make up of man, the grandest and most complex of all created things, gives to it a dignity beyond all other pursuits of an earthly character. How important, then, does it become that each one who essays this noblest life-work should strive for the highest possible standard, and be thoroughly equipped for the difficult undertaking which he has assumed.

There is no business, however simple, which can be successfully prosecuted without proper training and suitable preparation; and he who attempts any, even of the minor, pursuits of life without this preparation, in the majority of instances, will ultimate in signal failure.

The successful farmer must learn his art through years of patient observation and experimentation. The merchant must abide his apprenticeship and the mechanic patiently learn his trade. Our brother, the disciple of the green satchel and crooked tongue, masters the theory and practice of law only after years of persistent application. If, then, the accomplishment of success along these lines of life's work, where all is material and tangible, where all can

be weighed and measured, and where, if mistakes occur, they are temporary and correctable, depend upon a previous and proper preparation, how superlatively important it is that the physician enter upon his life career four-square and complete in every detail, for in his case mistakes are mistakes forever, and often fatal.

The study of medicine is mainly the study of man—of man in all his wonderful and intricate arrangement of ganglion and vessel and nerve, with all his hidden secrets of animal and vegetative life, with all his high endowments of intellect, sensibility and will. With all this vast, interesting, and, alas! often obscure, field to be explored, how appalling does the flippant way in which its great responsibilities are assumed appear to the reflective mind. The time has been when these grave responsibilities could be taken up by anyone without let or hindrance, and often it has been the case that some have dared to enter into these beautiful mysteries of life without chart or compass or guide to the hidden field they would explore. Even when an attempt at preparation was made, oftentimes, it was incomplete and totally inadequate, the main idea being the possession of a Latin-written diploma, the meaning of which remained as inscrutable as the riddle of Sphinx. It is for reasons such as these that our profession has failed to merit and obtain from the laity that high place which the importance of our mission would naturally assign us; and when we have fully met the demands which the public has the right to make at our hands, and approached as near as may be that idea which presently will be delineated, I doubt not that they will be more ready to grant all we ask in honor, respect and material wealth. I desire to-night to show how the oncoming profession can reach the desirable goal. And while I am well aware that I shall, in some measure, go over ground traversed by others before me, still I am consoled by the reflection that the accomplishment of all changes for the better in the world's history, whether social, scientific, political or religious, have been wrought by the persistent, repetitive and untiring efforts of men.

In the first place, in order that the physician may approach the ideal, and merit and gain the greatest confidence of his community, it is necessary that there be in his mental and material make up a certain adaptability for such a life. "You cannot make a jewelled purse from a sow's ear," and you cannot metamorphose an inherently coarse and unsympathetic nature, with mind vicious and

grovelling, into the kind and generous, sympathetic and polished attendant of the boudoirs of culture and refinement. Cultivation and training may do much, but they cannot give that warmness of heart, gentleness of manner and ingenuousness of thought so essential to the attainment of the highest phase in the physician's life. As of the poet, with equal truth it may be said of the physician, "Doctor *nascitur*, *non fit*."

Then the born physician must receive suitable educational qualifications outside of the technique of his profession. The intelligence of a community judges the capabilities of a medical man more by what information he possesses outside of his professional studies than by any lucubrations in the recondite subjects of embryology and bacteriology.

Outside of the reputation for scholarship which a liberal education brings, a certain amount, and that not a minimum, as some would have us believe, of mental culture and training is absolutely essential. The problems to be met and solved in the every day routine of a physician's life comprise some of the grandest and most complex which engage the attention of men. The medical mind must be taught to think quickly, to estimate the nice relations between cause and effect, and to form and put into execution an unerring judgment. In order to accomplish such ends it must grow up and be developed under the nourishing influences of a proper pabulum. Mathematics, in its higher problems, with thought along the plane of pure abstraction; physics, with its logic of cause and effect and correlation of forces; the classics, with its golden chains linking us to all the human nature, to all the poetry, beauty and glory of the mythic poet, and bringing to us along with the charm of historic life in antique time, a richer power of clothing the thoughts which people the brain in the euphonious habiliments of perfect language—these, all these, are the food upon which the professional mind must feed in order to accomplish its full development. The only aristocracy or caste in which I believe is the aristocracy which comes from this higher moral and intellectual culture, and in such an aristocracy lies the salvation of this Republic. I am convinced that the iambics and hexameters of our colleges and universities are the forces which have given, and will give, perpetuity to a government whose very foundations have been, and are now, threatened equally by the anarchistic, ignorant and discarded

foolstool of Europe, and by the money power indigenous to our own soil. There is something in this higher culture which inherently tends to lift man's attention away from the degrading things of time and sense, to chasten his thoughts, to purify his sentiments and to point to that high goal of excellence which should be the working ideal of every heart. In view of such facts how important it is that the members of the medical profession, both for their sakes and their native land, should enter upon their life-work with minds trained to high and liberal thoughts, and hearts imbued with that broad and protecting patriotism which only the loftier moral and intellectual culture can inspire. Along this line, my honored confrérés, lies our quickest route to that eminent position in the public esteem which the importance of our work naturally assigns to us; and only in this way can we, as individuals and as a class, hope to fathom and appreciate all the rapid and complex unfoldings that are being made from day to day both in the science and art of medicine.

After being born and reared to a natural fitness for a physician's life, after being thoroughly trained in both analytic and synthetic thought by the mental stimulus which a liberal education affords, the labor of acquiring the necessary professional technique may properly be undertaken. As this is the distinctive feature of a doctor's training, so it is the most important, and no one can hope to gain substantial and honest success without it. Only a few years ago, in the effulgent light of the nineteenth century, amidst the civilization which surrounds us in this Grand Old State, any one, so desiring, could legally trifle with the life of his fellow-man. The ignorant boor from the plow or the bench, the blatant quack, fresh from the diploma mill, the scheming charlatan, the callow stripling, from the third rate college, could assume at pleasure the *toga medicalis*, and bask in the honors of the doctor's title with as much assurance as the most dignified and cultured disciple of Æsculapius. Thanks to the efforts of this Society this foul blot has been removed from the escutcheon of the Old North State's fair honor, and to-day some considerable preparation must be evinced by him who would assume the responsible functions of the physician's office. Let the good work go on. Let the standard in morals, in preliminary education, in professional training, be continually elevated towards the ideal, until none, except those thoroughly

equipped in all parts, be admitted to the ranks and honors of the ancient guild. Let us see to it that, to be a practicing physician in North Carolina shall be a synonym at home and abroad for all that is honorable, for all that is cultured, for all that is scientific in the medical profession. To accomplish that it is necessary that the time of professional training be lengthened. In a new country like America there is an innate tendency to the precipitancy and hurry of youth; but we are now becoming sufficiently matured to lay aside the skurry and bustle of our younger days, and in matters medical, at least, we would do well to imitate our more settled frieads across the water. There from three to five years are deemed requisite for the completion of medical training, while in our own country the same work is supposed to be accomplished often in one year. The author of this essay left home in October without any previous preparation, and on the first day of the following July—just nine months—he was declared by one of the best universities in this land as learned in all the mysteries of the theory and practice of medicine, and as a suitable one to whom the lives of his fellow-man might be entrusted with safety. No doubt, in theory, there was a fair show of fitness; but in practical application there was much to be desired. During my whole student career I had not seen a sick individual nor a single surgical procedure. I returned home thoroughly unprepared to cope with the exigencies which confront the physician at every turn, and but for the practical training and help received from an older brother, I doubt not that many a pang would have remained unassuaged which should have been relieved, and to-night many a soul would be awaiting me on the other side of the Stygian stream with taunts and curses for their "untimely taking off." The ideal physician should not only be thoroughly drilled in the science of medicine, but should have opportunities under the eye of an experienced teacher for putting his knowledge to the test of practical application.

At this point I desire, in an episodal way, to say a few words to those young gentlemen who are now just upon the threshold of their important career. The often vital mistake which most young men commit in any of the vocations open to their choice is too great anxiety to enter upon the responsibilities of real life. As already intimated, they are unwilling to give those years to preparation which future decades, ladened with ponderous demands,

necessitously require. How small a pittance of time does one or two years appear when viewed in the light of the forty years of responsibility which are to follow. What is the cause of this precipitancy? What so impels the young heart along the arduous way? It is not ambition to be eminent; if so, the most feeble dictates of prudence would discover such to be a suicidal policy. It is not poverty, for to him that willeth there always opens a way. Leaving out of consideration that inborn indisposition to labor, which, alas! afflicts the majority of our race, I am convinced that woman, yes, lovely and lovable woman, is the occasion of many a failure which saddens the main of professional life. Do not understand me as wishing to take one gem from the jewelled crown of pure and beauteous womanhood. I belong to that majority who believe that, of all the beneficent gifts from the creative hand of God, a woman, pure and good, excels them all, and is more beautiful than "any other form of matter ever seen on land or sea, in flower or gem or living thing."

> "As flowers beneath May's footstep waken,
> As stars from night's loose hair are shaken,"

so the most vivid joys which perfect the life of man spring wherever her gentle step is heard, and from her presence there is distilled the rarest benedictions upon the responsive heart. It is not, therefore, against woman as a class that I inveigh, but rather against that love for a particular individual which so strongly impels the youthful heart to the (oftentimes) disastrous entanglement of matrimonial alliance before thorough preparation has been made for life's important work. The exactions of a loving wife and the discordant music of the cherubic infant, however joyous they may be in the serene days and calm of later life, are not very conducive to success in your hours of reflective study, and will unconsciously ween you away from that mental application so essential in the first years of practice to fix the attainments of your student career.

For these reasons I would bid the youth who aspires to great things, who would approach the ideal, to beware of love. Of the smooth glance and the siren voice beware; for it is too late when on the heart the "torrent softness pours." "Then wisdom prostrate lies, and fading fame dissolves in air away." When you are ready for a wife select with your maturer judgment a suitable helpmeet,

and she will crown your life with choicest blessings; before that time even the best will be a clog and a hindrance.

We now come to that part of our subject which more clearly touches those present upon this occasion. What shall the medical man add to his innate qualities, his scientific accomplishments and technical information, to render him the ideal in medical practice. It goes without saying that he must be neat in attire, yet not a devotee of ultra fashion; courteous in manner, yet not sycophantic; gentle and persuasive in speech, yet not vacillating or womanish; silent as the grave in professional matters, yet not cold and seclusive; chaste in conduct, yet not to prudery; temperate in all things, yet not a fanatic. In addition to these characteristics, he must practice medicine for pure love of his work, and carry in his bosom a broad and catholic feeling of kindness for every creature whom God has made—a kindness that is forever responsive to human suffering, and will not hear unanswered the wail of anguish from the afflicted one, whether he be the veriest pauper of the kempt shanty or the lordly possessor of the splendid mansion. The ideal physician will not linger to quibble about a paltry fee, when, in his imagination, he sees the palid form writhe in torturing agony. The truth is, my friends, the ideal physician will do his duty for duty's sweet sake, and because it thrills his soul to relieve the woes of terrene existence. The ideal physician as the ideal messenger of Jesus will go about relieving human suffering without anxious thought for fee or reward that is to follow. To him whose fancy pictures the real bless of life as reposing in the lap of vast and luxurious material wealth, I would advise a different path in life from that the physician must tread. The history of the profession shows that the doctor who has accumulated more than a competency is indeed a *rara avis*, and when such an one is discovered it will be found that the riches have come through other avenus than that lined by pills and powders, by days of ceaseless toil and nights of broken rest. But I am happy in the reflection, there comes to the faithful physician a reward for his service which cannot be measured by coins from Ophir, as sweet as the solacing joys of religion and as lasting as the immortal mind. Disappointment must ever await him who attempts to satisfy the thirsty longings of his infinite soul for happiness with the material things which finite time supplies.

"As well seek for mellow grapes beneath the icy pole,
For blooming roses on Death's pale cheek,"

as to expect to fill the soul, which Heaven has given us, infinite in its cravings, with the paltry offerings which time and sense can furnish. The unspeakable joy which thrills to its remotest ganglion the soul of him who loves his fellow-man, and who, solely on account of such love, without hope of reward, has assuaged the pangs of physical pain and smoothed down the anxious brow of sorrow, will remain to comfort and bless when the material rewards of men have perished from his grasp, and, as he passes the portals of the "narrow bourne," will crown his departing life with a halo of light, and pour over his heart the chrism of a beautiful peace. Love for our fellow-man! This is the crown jewel of the ideal physician's heart—yea, the very essence of all religion. However much the nations of the earth may differ in their conceptions of Deity and their form of worship, whether theybe Fetichist, Buddhist, Moslem or Christian, the very highest test of virtue in them all is kindness shown to their fellow-man in distress. Perhaps we may never know the true teachings of Jesus in regard to the rites and ceremonies of the Christian Church—the mode of baptism and the proper subjects for such a rite, the nature of the Eucharist and its proper participants, priestly succession and the governmental policy of Church organization—but we do know, in the estimation of the greatest of all physicians, at whose magic touch the tentacles of the most mortal malady never failed to unloosen, the simple act of Him who bound up the wounds of the unfortunate on the wayside and poured words of sweet consolation into the despondent heart, far outweighed all the gilded paraphernalia and gorgeous ceremonial of the Jewish Church. If material wealth should come as a natural sequence to the faithful discharge of duty, the ideal physician will rejoice, since it gives him wider opportunities for blessing his kind; if it come not, he will not repine, for in the sweet garden of faithful duty done there grows a "charm for every sorrow, a balm for every woe." With the friends whom his goodness has linked to him with hooks of steel, with a mind forever vernal with the reflections of conscious duty done, and an honor unbesmirched, he can defy the reverses of fortune and smile at the irony of fate.

"O, time, when life beats feebly in my veins
And wintry snow upon my head descends,
Take health and strength and all my paltry gains,
But leave me 'a clear conscience' and my friends."

As there is an ideal physician, the best to be conceived in the profession of medicine, so there is his correlative,

### THE IDEAL PATIENT.

While the physician has duties to be discharged and obligations to be sacredly fulfilled towards the patient, with equal force the patient is bound to his medical attendant. It is the first duty of the patient to use his best judgment in the selection of his attendant, and when the selection is made, to adhere to him under all possible circumstances, until unfitness for the trust reposed is thoroughly shown. In such selection all those qualities should be considered which have been already adduced as constituent of the ideal doctor. If the choice be made for any other reason, because such an one is less expensive, is your kinsman, your friend, your neighbor, your co-worker in Church or State, the time will inevitably come, when the pangs of the body remain unrelieved and *Pallida Mors*, with sickle keen, approaches for an untimely reaping, that you will regret your choice. The best patient never chooses his doctor in a haphazard and careless manner, nor after he is chosen views him with commercial eye as an ordinary hireling, but as a friend and adviser in the more serious and sacred aspects of life reposes in him the most trustful confidence, and unbosoms to the sympathetic ear the secret burdens of himself and family.

Of course, such a patient, unsolicited, will not only bestow upon his attendant, thus selected and trusted, a tangible honorarium commensurate with the material service rendered, but will at the same time appreciate the fact that there is often manifested on the part of his doctor a co-suffering, a mental strain, a disregard of personal danger unredeemable in shekels of silver.

When the young wife and expectant mother lies pale and exhausted by the throes of parturition, "life trembling to a point, leaping off by fits," and husband and relatives stand paralyzed by fear or stupified by grief, then the calm, but sympathetic, medical attendant bears alone the burden of two precious lives. With

mind keenly alive to the dangers of the moment, and heart pulsating in responsive suffering to the anguish around him, with one hand, as it were, he shields from the cormorant—Death—the fair form under his care, and with the other conducts the new life through that "triumphal arch under which every candidate for immortality must pass." It is for service such as this, my friends of the laity, for which your material wealth furnishes no adequate reward, and the debt must be liquidated, if ever, by the grateful acknowledgment of an appreciative heart. Do not hesitate, then, both in the doctor's presence and in his absence, when there is good prospect of his hearing it again, to speak words of commendation and gratitude, for I assure you they will enrich his toiling life more than pecuniary gain, will fall upon his receptive ear as an eloquence more persuasive, as a music more sweet than ever echoed through Attic temple, or fell from golden harp.

When the gloomy pall of pestilential stroke rests upon the land, and the very atmosphere is freighted with a funereal sadness; when the invisible enemy, the death-bearing germ, marching under the black banner of extermination—the dark wing of Azrael—more destructive than Attila, more relentless than Nero, treads the viewless fields of air, enters our cities, our homes, and sits by our firesides; when the terror-stricken multitudes desert their friends and vacate their homes, leaving behind them in their flight only poverty, ghastly disease and bitter death, then the faithful physician, uninspirited by strains of music or the huzzahs of comrades, stands unflinchingly at his post like warrior at cannon mouth. All day long and through the silent watches of the night, with a professional prescience oftentimes of the hopelessness of his labor, he walks the deserted city, the echoing sound of his footsteps falling upon his weary heart like clods on coffin-lid, and administers to the pale victims of the fell destroyer that mental and physical consolation which only the faithful physician can bring.

While for such a hero there will be no crown of bays or hymn of panegyrist, no breathing bronze, no marble shaft or cenotaph, still, in the ideal patient's breast, there will live a memory of such a service more enduring than monuments, "more perennial than brass."

The life of the physician is peculiarly a wearying one in its endless routine of duty. There is no moment he can call his own from

one year's end to another, but he is the continuous slave of those who may require his service. The lawyer lays aside his brief between terms and rests from his labors; the minister, in this day of fashionable invalidism, deserts his parish for the exhilaration of seaside and mountain; at periods the workman lays aside his tools and the ploughman his share; the laborer watches with joy his lengthening shadow since it speaks of the repose which approaching night will bring; and to all these the Sabbath, sweet day of rest, with its complete cessation from all work and care, brings to the body and mind of each holy influences and refreshing repose. The faithful physician has no moment, no day, no night, no Sabbath, which he can claim, for death, relentless and insatiable, roams the earth at all seasons and plucks his victims at all times. In view of such facts the considerate patient will not require of his doctor unnecessary and untimely labor, nor disturb, except under the most imperative circumstances, his hours of needed rest and sleep.

The life of a physician is filled with delicate situations, and his simplest expressions are often, honestly or maliciously, misinterpreted and corrupted.

Every community has its incubus of human vampires who, characterless themselves, find in their own depraved bosoms the standard by which they estimate the lives of others, who regale themselves as upon sapid viands with the slanderer's odious tale, and are never so happy as when they chant the hymn of character-defamation. The ideal patient lends no listening ear to such as these, is ever ready with the ægis of his protecting denial and refutation to shield the faithful physician and friend from the envious and envenomed shafts of those who would assail him, and never entertains, except upon the most indubitable testimony, the incriminating criticisms of jealous rivals, nor the insinuating thrusts of malicious foes.

In summation, the ideal patient will never suffer his doctor to solicit material reward; will ever appreciate, and show it by grateful words from a more grateful heart, the soul service which money cannot buy; will rejoice in the moments of success and pleasure, and in the sombre hours of defeat and depression will swiftly extend the warm and generous grasp of sustaining friendship. My confrérés and friends of the laity, may it be the acme of ambition in this reciprocal relation of doctor and patient that each may lead the other in all that is generous in human nature, in all that is lofty in human conduct. And in all future years and meetings, even until, in the finality of earthly hopes and issues, we meet

"Beneath far lovelier skies,
Than sprinkle beauty through the balmy South."

As physicians, laying aside all jealousies and dissension, as patients, putting away all distrust and suspicion, may we labor together in concordant harmony towards the attainment of

# REPORT ON OBSTETRICS.

By W. O. McDowell, M.D., Scotland Neck, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

## OBSTETRICS.

Of all the bitter scenes and sad disappointments that must be faced by a physician, there is none more pitiable, none more profoundly sad than that which the lying-in chamber sometimes presents—a living infant and a dead mother

This one thought should be sufficient to cause a medical man to give every lying-in woman who has placed herself in his hands his most serious attention. When an expectant mother has confided herself to the hands of a physician he should, if possible, visit her previous to her confinement, in order to ascertain her disposition, her temperament, her mental or physical peculiarities—whether, if a multipara, she be subject to eclampsia, puerperal mania, or any other avoidable malady. Or, if she be a primipara, he may form some idea of what he is to encounter. One thing he will certainly gain—he will save his patient a great deal of anxiety and excitement on his arrival at her confinement, which might be attended by a cessation of pains and perhaps delay, thus causing loss of time which might be more profitably spent elsewhere. He should make some suggestions in regard to the chamber in which the confinement is to take place. This is very important, for I have frequently seen onions, potatoes, pumpkins, old clothes and shoes under the bed on which a parturient woman was lying. Such things, of course, furnish a nidus for the great variety of deadly organisms which swarm in a lying-in chamber, and should be removed before the hour of confinement arrives.

Having made the aforenamed visit and given all necessary instructions, the physician returns and awaits the summons. When called he should spare no time in getting to his patient's side. After having ascertained her condition, he should at once turn his attention to the condition of the bed, room and surroundings generally. Only a few days since I was called to deliver a patient, and, as is my custom where there is cause to suspect any such thing, I told the husband that anything that might be under the

bed would prove a fruitful source of septic poison, whereupon he drew out a box of pork or bacon that had been packed away under the bed. I believe in Listerism! By Listerism I do not mean the indiscriminate use of carbolic acid, but its judicious application where antiseptic measures are necessary. I mean, too, not only the use of carbolic acid or other antiseptics, but the most scrupulous cleanliness about the lying-in chamber. Dampness should be excluded from the room, all decaying or putrefying matter removed from about the building, and the very strictest hygienic measures observed in every way.

*Examinations.*

This subject has been frequently and freely discussed and various opinions advanced. I shall say nothing on the subject except in regard to frequency or infrequency of examinations. For a time I was of the same opinion as a great many others, that, after ascertaining the advancement of labor, the presentation and position of the child, examination was not necessary until just before the end of the second stage. Experience, however, has taught me differently. One reason, if no other, warrants me in making frequent examinations, and, in order that I may present it in an impressive manner, I will report a case:

Mrs. S., white, æt 43, multipara, sent for me, May 16, 1885. The patient had been in bad health for several months previous to confinement. When I was called the patient had some pains, and, on examination, I found the os beginning to dilate, the membranes having previously ruptured. The movements of the child were very great, so great, in fact, as to cause the patient to cry out at times. In about one hour after I arrived I noticed that all mobility of the child had ceased and that the patient was lying perfectly calm. I took hold of the hand, and, on pressing her pulse, found it very rapid and thread-like. With stethoscope over the abdomen no fœtal heart-beat could be heard. I was at once convinced that something was wrong, and, upon making an examination, found that my patient had lost an enormous amount of blood. The first thing my hand met with was the prolapsed cord. I felt for pulsation, but there was none—hæmorrhage still profuse. Gave ergot, but it seemed to have no effect. I then injected a syringeful into the thigh, which seemed to partly control the hæmorrhage. On

close examination, I found that the cord was tightly pressed between the fœtal head and pelvic bones and all circulation cut off—the child was dead. From loss of blood pains were very weak and accomplishing nothing; so I delivered her with forceps of a large female child.

Now, had examinations been made more frequently and the cord detected when it first presented, these alarming symptoms and a still-born child might not have been the result. If the cord is detected when first presenting, with any flat instrument—a common bonnet stave, if nothing else is at hand—reposition may frequently be easily accomplished. With one or two fingers in the vagina, fix the instrument against the presenting loop and gently push it up until it cannot be pressed by the head. I do not mean that the accoucheur should sit with his hand in the patient's vagina from beginning to end of labor, but frequent, brief examinations will not fatigue the patient, and no harm can come of it, whereas negligence in this respect might result in irreparable damage both to the patient and to the physician's reputation.

One of the principal causes of prolapse of the cord is the too early rupture of the membranes in absence of or at beginning of pain. The membranes should not be ruptured until the os is dilated or dilatable, and should always be done as the pain is passing off, for then the presenting part of the child is pressed down into the cervix, and thus prolapse of the cord is prevented.

### *A Cause of Prolonged Labor.*

Many a prolonged labor might be much abbreviated if the accoucheur would but watch the position of the uterus. It will frequently be observed in these prolonged labors that, when the uterus contracted, the fundus will tilt forward over the pubes, turning the cervix back, with the os against the sacral wall, and thus prevent the fœtal head from advancing. To illustrate: On March 27th I was called to deliver Mrs. F., a lady who was in excellent health. I found her in the hands of two midwives, and was informed that she had been in labor for forty-eight hours with the strongest imaginable pains. On examination I found vertex presentation, but no os could be felt. I waited for a pain, which soon came. The uterus ascended and turned forwards, as described

above. Examining during pain, I found that the cervix had receded and was firmly set against the sacral wall.

By pressing the fundus back the cervix was brought forwards and found to be dilated to about two inches in diameter and very rigid—L. O. I. A. position. I gave 20 grs. of chloral hydrate, partly to give my patient a little rest, which was much needed, and also to relieve the rigidity of the os. I then pressed the fundus back in its normal position and kept it there by steady pressure. Pains were almost incessant, and in twenty minutes a large male child was expelled. This is only one out of many similar cases that I have witnessed.

This tilting forwards of the uterus is brought about by the coöperative contraction of the round and utero-sacral ligaments, for it will be remembered that the round ligaments send a thick loop up over the fundus in front, and are attached below to the spine of the pubis, while behind the utero-sacral ligaments run from a level with the internal os and are attached about the third and fourth sacral vertebræ. The round ligaments become very thick during pregnancy, and it is reasonable to suppose that the traction made by them during labor would be very great. All the pelvic organs are thrown into action during labor, and, when we remember that the round ligaments are drawing forwards at the fundus, and the utero-sacral ligaments are drawing backwards at the cervix, it is readily understood how the uterus is thrown out of position during labor.

In view of these facts I am convinced that many a tedious labor could be cut short by keeping the uterus in its proper position during contractions.

*Management of Labor—Position of Patient, etc.*

It is universally acknowledged that the patient should not be allowed the recumbent position during the first stage of labor, yet, under certain circumstances or for certain well-founded reasons, it must at times be allowed. If the patient be very anæmic or subject to vertigo, nausea and vomiting, then it would be better to allow her to lie down or recline in a chair. It is desired that the child shall, by gravitation, press down into the cervix, and thus aid the feeble contractions of the uterus, which are almost *nil* in the first stage.

*Second Stage.*

About the beginning of the second stage the patient should be put to bed. Whether she should lie on her side or back is a question that has elicited much discussion.

It is claimed by those who advocate the left side position that the dorsal position leads to unnecessary exposure of the person and increases the risk of laceration of the perineum by bringing the weight of the child's head to bear directly upon it. So far as the unnecessary exposure of the person is concerned, no well educated man will dare expose the genitals of his patient during labor unless it be under extraordinary circumstances. The hand is, or should be, educated to do its work under cover. The physician who is not able to ascertain the presentation and position of the child and the advancement of labor, to manage labor, under ordinary circumstances, from beginning to end, without exposing his patient, should quit the field of medicine and find employment elsewhere.

In regard to lacerations of the perineum, in 1881, when I was in the Maternity Hospital of Baltimore, we used the dorsal posture exclusively. In my practice I have used none other, and I have yet to see the first lacerated perineum resulting from such practice.

*Supporting the Perineum.*

Although Goodell says "the word *support* the perineum is a misnomer," yet we should, and do, support it. The plan of supporting the perineum by steady pressure with the palm of the hand, which causes it to be hot, dry and unyielding, has been sufficiently condemned.

Dr. Reamy, of Cincinnati, recommends a plan of supporting the perineum by strapping his patient up in towels and having two assistants to draw while he *engineers*. It is so complicated and inconvenient that we doubt its utility.

The perineum should be supported by uniform pressure made with the *tips* of all the fingers of the hand. I have seen but little or no good from the so-called plan of imitating Nature as recommended by Goodell—inserting two fingers into the rectum and pulling forwards the sphincter ani, while at the same time exerting pressure on the head with the thumb of the same hand. The more the sphincter ani is drawn forwards the more the vaginal orifice

is closed, and to overcome this extra pains and time are required. There is but one circumstance that will warrant it—when the perineum is rigid and unyielding and pains very strong. Under such circumstances we always fear perineal rupture, and anything that will retard the advancement of the head is gladly accepted.

I do not mean to condemn the practice of inserting the fingers into the rectum, for much good is often accomplished by so doing, especially when the fingers can be hooked over the child's chin.

*Third Stage of Labor.*

The medical profession is pretty well divided as to whether the placenta should be removed by *vis a tergo*, *vis a fronti*, by the two combined, or by the non interference plan.

Drs. Hunter and Taylor, of New York (*Am. Jour. Obs.*, May, 1884), believe in the Strassburg method—that neither the cord nor uterus should be touched, but that the whole expulsion, both of the child and after-birth, should be a natural process, which it will be if let alone.

Dr. Hadden makes traction on the cord and at the same time compresses the uterus.

Dr. Mundé recommends: "As soon as the head of the child is expelled, make steady, gentle manipulation and friction of the fundus, and follow it up until the uterus has diminished in size, so that it reaches only about half-way between the umbilicus and symphysis pubis, and when no higher than that, and the organ has a globular outline, one might be sure that the placenta was no longer within the uterine cavity."

I believe with Dr. Garrigues, that we should conform as much as possible to the physiological process of Nature, not as Drs. Hunter and Taylor say, leaving all to Nature, but by aiding her in the best possible manner. This is certainly not done by making traction on the cord. I have tried all the plans recommended and have devised some of my own, but all are hushed in silence when compared with the great Crédéan method. Some hold that it increases the risk of hæmorrhage, puerperal fever, etc., but reason, to say nothing of experience, teaches differently. It is well known that it lessens the probability of hæmorrhage, after-pains are much more infrequent, the great bug-bear adherent placenta is almost unheard of, and that, if puerperal troubles are influenced either way, the Crédéan method

has the advantage. Crédé's method is much lauded, and deservedly so. I sometimes think that those who maintain that the old way of removing the after-birth, by making traction on the cord, is preferable, simply do so for the sake of argument, but perhaps they have not yet learned the tact, and we should not censure them too strongly.

*Tying the Umbilical Cord.*

This is a well-known subject, yet there is room for comment. I believe that ill-health has been stamped into many a child's system from its mother's womb simply from indiscretion or a lack of knowledge as to the proper time of tying the cord.

The total quantity of blood in an infant is about one-nineteenth the weight of the whole body, which would amount, in a child of eight pounds, to about six and three-fourth ounces. Budin has shown by experiment that in every case where the cord was tied and cut immediately after the expulsion of the child that three ounces of blood would escape from the placental extremity of the cord, whereas, in late ligation none, or simply a trace, would escape. Thus we see that early ligation robs the child of about one-half the blood Nature intended it should have. It is not difficult, therefore, to understand why children of early ligation are "pale and apathetic," while those of late ligation are "red, vigorous and active."

Dr. Lusk (*Science and Art of Midwifery*) makes the following suggestions:

1. The cord should not be tied until the child has breathed vigorously a few times. When there is no occasion for haste arising out of the condition of the mother, it is safer to wait until the pulsations of the cord cease altogether.

2. Late ligation is not dangerous to the child. From the excess of blood contained in the fœtal portion of the placenta the child receives into its system only the amount requisite to supply the needs created by the opening up of the pulmonary circulation.

3. Until further observations have been made, the practice of employing uterine expression previous to tying the cord is questionable.

4. In children born pale and anæmic, suffering at birth from syncope, late ligation furnishes an invaluable means of restoring the equilibrium of the fœtal circulation.

If Nature designed that six ounces of blood were requisite for the welfare and to open up the pulmonary circulation of a seven-pound infant, six ounces, and no less, should be allowed. The physician has it in his power to allow three, four, five or six ounces, but if we are going to conform to the physiological process of Nature in one thing we must do it in all. Wait until the pulsations of the cord have ceased, then the pulmonary circulation will be opened up and the child will be prepared to oxygenate its own blood.

## *Abortions.*

*Does malarial fever cause abortion?* It may not be a well recognized fact, but is none the less true, that abortions occur much more frequently in some parts of the State, or even in certain localities in a county than in others.

In the eastern part of Rowan county abortions have reached an alarming degree. It is worth while to mention that this section is known as *the malarial* district of Rowan county. It is along the banks of the Yadkin river, and of creeks whose valleys are full of lakes and ponds, the very generators of malarial poison. I have dispensed to patients in this district in malarial seasons, upon an average, an ounce of sulphate of quinine aday for six weeks. In this district, I say, abortions are becoming very frequent. I believe abortions are said to occur once in about every one hundred and twenty pregnancies. I am not prepared to say what the per cent. would be if all the labors in this district were recorded, but by consulting my note-book I find that, for the last four years, fifteen per cent. of the lying-in women attended by me in this district were abortions or premature labors, to say nothing of the many cases seen in time to arrest and bring to term. The causes, of course, are variable, yet I verily believe that malaria plays its part.

Behrmann says (*N. C. Med. Jour.*, January, 1886, p. 51):

1. Intermittent fever is very common during pregnancy, and occurs more frequently in the second than in the first half.

2. Pregnancy has no influence over the length of interval between the attacks.

3. Intermittent fever coming on during pregnancy is difficult to cure, and when recovery has taken place relapses are very common. Severe attacks may terminate the pregnancy prematurely.

4. Parturition takes place on the day and at the hour at which the febrile paroxysm usually sets in.

5. During the first stage of labor the febrile paroxysm often shows itself, running the same course as during pregnancy. During the puerperal period, also, attacks are very liable to occur, following the same type, except that the intermission is never complete.

6. Attacks of intermittent fever during the puerperal period do not render the woman more liable to other puerperal diseases.

7. The fœtus is affected by these malarial attacks as by any other elevation of temperature; its movements and cardiac sounds are affected in much the same way as when the mother is attacked by typhus fever.

8. A prolonged and severe attack of intermittent fever may lead to the early death of the fœtus.

9. Intermittent fever in the mother may affect the intra-uterine fœtus with the same disease.

Only the third and eighth paragraphs here bear directly upon the subject before us. Under the third head he says: "Severe attacks may terminate the pregnancy prematurely," and in the eighth "a prolonged and severe attack of intermittent fever may lead to the early death of the fœtus."

While I hold that malarial fever does, under certain circumstances, shorten the period of gestation, yet I am far from believing that all abortions that occur during an attack of malarial fever are caused directly by that malady. While it may be the predisposing cause, the exciting cause is frequently something else.

Many cases of abortions are attributed to malarial attacks, when really the cause of abortion was quinine or some other oxytocic remedy. I have seen many cases that came near aborting simply from the use of quinine—one did abort.

I was called to see Mrs. E. at 4 p. m., suffering with bilious remittent fever; gave just enough quinine to break up the malarial attack, and by the time the system was brought fully under the influence of the drug, strong uterine contractions set in. At 7 p. m. I was summoned hurriedly, only to arrive in time to witness a premature delivery. I am confident that quinine was the exciting cause of the abortion in this case. The patient had suffered for days with the same malarial attacks, and had felt no symptoms of pains until the quinine had been taken.

### *Other Rare Causes of Abortion.*

I have seen four cases of abortion, and many others threatened, that were caused by the woman picking cotton in her apron, which was tied around the waist and left to hang in the shape of a bag over the distended abdomen. The combined weight, friction, irritation and heat over the abdomen might have had something to do with it, yet, I verily believe that the constant inhalation of the odor of cotton-seed was the true cause of abortion.

*Santonin* should not be given to pregnant women, for it acts upon the non-striated muscles like ergot, and will cause abortion.

*Treatment.*—In the treatment of threatened abortion we should first look for, and, if possible, remove, the cause. Viburnum prunifolium has proved itself to be the most reliable uterine sedative. Many cases have been saved, even when there was quite severe hæmorrhage, by the free administration of this remedy.

When all efforts fail and abortion is inevitable, the sooner the end is reached the better; but here, again, we must conform as nearly as possible to Nature's process. If hæmorrhage is profuse and there is just cause for alarm, then the uterus should be emptied immediately. We frequently see the fœtus and membranes coming away intact, but in many cases the secundines are left in the uterus. In such cases, especially in early abortions, we may expect trouble if we attempt to remove them at once.

### *When should the Secundines be Removed?*

The earlier writers advised the expectant treatment of retained portions of the ovum—Churchill, Leishman, Meigs, Bedford, Zyler, Smith and Hodge, all advise the expectant plan. But when we consult late writers we find quite a diversity of opinion. Barnes (*Southern Clinic*, June, 1884) says that the first indication is to empty the uterus. Playfair tampons the vagina and gives ergot in cases of alarming hæmorrhage or of undilated os uteri. If the os still remains closed, he employs sponge tents for its dilatation, even though there be no urgent symptoms. Prof. A. R. Simpson advocates the use of a sponge tent, previously disinfected, as soon as abortion appears unavoidable. He also gives ergotine hypodermically. Schroeder employs the tampon if the hæmorrhage is alarming or the ovum is retained.

Angus McDonald says that in the ordinary run of cases, in which the hæmorrhage is not especially profuse, we ought to trust to ergot by the mouth, or ergotine subcutaneously, and that we shall most probably find that all will go on all right, except that we shall have to hurry the conclusion of the case with slight manipulation, and that wholesale imperfect plugging of the vagina is to be strongly deprecated.

Lusk endeavors to empty the uterus as soon as possible. If the cervix is open, he uses the finger; if it is closed, he employs the tampon, giving it three trials, each tampon being left in the vagina twelve hours. If, after removal of the third tampon, the cervix is undilated, he resorts to sponge tents.

Z. Johnson Alloway, of Montreal, advocates the immediate removal of the secundines with the curette, not the finger, either with or without previous dilation of the cervix.

Dr. Mundé gives it as his opinion that the future safety of the patient demands that the secundines shall be at once removed after the expulsion of the fœtus in every case of abortion in which such removal can be accomplished without force sufficient to injure the woman.

Dr. W. H. Farr is in favor of the immediate removal of the membranes after abortions. He employs the curette forceps, and opposes the use of the finger as being dangerous.

Dr. Walter Coles, of St. Louis, opposes the removal of the membranes as a matter of routine in every case of abortion. If the immediate symptoms are urgent, the placenta should be at once removed by the finger, forceps or curette, the cervix having been previously dilated if necessary. If there are no urgent symptoms the expectant plan should be pursued. Dr. Coles' paper was read before the St. Louis Obstetrical and Gynæcological Society. A general discussion followed, and it was evidently the sense of the Society that the expectant plan is safer than the immediate removal of the secundines by manual or instrumental means.

From the foregoing extracts it is seen that dilatation of the closed cervix with tents and extraction of the secundines with the finger or forceps, is the usual method of procedure of those who advocate the immediate removal of retained portions of the ovum.

Mundé claims that the manipulation is so free from danger that every physician can employ it.

Thomas writes: "There is always danger in dilating the cervix with tents, though it is by no means so great as to make one hesitate in employing it."

It appears, then, that the first part of Mundé's manipulation is attended with danger. Let us now consider the extraction of the membranes by the finger, curette or forceps.

Barnes, Playfair, Simpson and Lusk deprecate the use of the curette or forceps as being hazardous. They employ the finger and consider it safe and satisfactory. Alloway and Farr, on the other hand, regard the use of the finger as highly dangerous, and claim that the curette gives better results. We thus have testimony from the gynæcologists themselves that the forcible extraction of the secundines, whether manual or instrumental, is not free from danger.

Having shown that active interference in imperfect abortion is a dangerous procedure, we have to enquire into the necessity of the operation. If the placenta does not soon follow the fœtus, or is not forcibly removed, what happens in a majority of cases? Published statistics on this point would be valuable and interesting, but, unfortunately, there are none. We must rely on our individual experience for an answer to this question. I think that the practicing physicians will bear me out in the assertion that the great majority of these cases take care of themselves, or at least require but little assistance from us. The placenta comes away within the next twenty-four hours, or within a few days. By far the larger proportion of abortions, as of deliveries at term, fall to the care of the general practitioner, the family physician; only a very small percentage reach the gynæcologist in the first instance. The latter sees the exceptional cases, the cases which have resulted badly, and therefore seek his special skill.

Having argued that active interference in abortion is, as a rule, unnecessary and dangerous, it follows that I agree with those who follow the expectant plan of treatment. This does not mean, however, that abortions should be neglected. I have frequently left cases ten, twelve, and even twenty-four, hours before removing the secundines, where there were no alarming symptoms from hæmorrhage, and have never seen a bad symptom result from such practice, but almost invariably find the os dilated, and, in the majority of cases, the placenta lying in the vagina or presenting at the external os. After the secundines are removed the very strictest

Listerism should be observed in every way. Bichloride of mercury is the most reliable antiseptic for intra-uterine irrigation where such treatment is necessary, yet it should be used with caution, for, though generally safe, it is not entirely free from danger.

Hofmeier, in speaking of the ill-results from the use of this drug, says (*Am. Jour. Obs.*, May, 1884, p. 518): "I wish to note, in the first place, as to possible danger of even weak *solutions of corrosive sublimate*. . . . Our case was that of a puerpera, recently delivered, with complete rupture of the perineum extending very high up; the rent was stitched up, while the wound was irrigated with sublimate solution 1 : 1,000. About the fifth or sixth day the patient was attacked by moderate fever with low pulse, and died on the twelfth day after a very fetid diarrhœa. The autopsy showed extensive gangrenous destruction of the entire mucous membrane of the large intestine, continuing also, though of lesser intensity, into the ileum, where it gradually terminated. Examination of the intestines at the Patho-Chemical Institute clearly demonstrated the presence of mercury in the tissues.

"A similar case is reported by Stadtfeldt in a recent number of the *Centralblatt f. Gyn.* A puerpera, having some fever, was given on the fifth day after labor an intra uterine irrigation of sublimate solution of 1 : 1,500. During the irrigation there was slight collapse, and five days later increased diarrhœa, vomiting and suppression of urine. The case terminated fatally. In the large intestine there were likewise numerous ulcerations, and, besides, parenchymatous nephritis.

"These two cases, in which comparatively small quantities of a moderately concentrated solution of bichloride of mercury were employed, must certainly impress upon us the need of the greatest caution in its employment in puerperal women."

In giving intra-uterine injections of any kind we cannot be too careful. The temperature of the water, strength and per cent. of the antiseptic used, condition of patient, kind of instrument and how to use it—this is very important, for an unskilled hand may tear open the mouth of veins that lie ready to absorb any septic matter that may be in the uterine cavity and convey it directly to the heart and brain, and, should such be the case, what is the result? The patient is killed as effectually as Bruno killed Lord Byron. Thorough disinfection of the hands and instruments is of vast im-

portance. The present state of bacteriology must convince even the most skeptic and conservative physician that soap and water exercise not the slightest influence over the microbial organisms, and that the true antiseptic agents have to be resorted to. Anything that absorbs, neutralizes or destroys putrescent effluvia, miasmata or contagia, and thus removes the cause of infection, are disinfectants. Boric acid, chloride of zinc, biniodide of mercury, carbolic acid, permanganate of potash and muriatic acid have all been tried and found more or less valuable for disinfection, but here, again, experience shows that sublimate solution is superior to them all.

If physicians would observe the strictest cleanliness and antiseptic measures in every way about the lying-in chamber we would hear less of septic troubles in puerperal patients.

## GYNÆCOLOGY.

Although Hypocrates gives us the first literature on the subject of gynæcology, there is no doubt, if such could be had, that Egyptian annals would show that it was practiced long before his day. Experience has been added to experience, research upon research, volume upon volume, has been presented to the profession by those most skilled in the practice, until to-day gynæcology stands as one of the first branches of medicine.

The subject of gynæcology presents a wide field for those skilled in making theoretical advances. Much, indeed, has been said and done, but, with a just reverence for our fathers and forefathers who have handed down to us such a vast amount of knowledge on the subject, we feel safe in saying "the half has not been told." Many have written, many are writing to-day. Everyone who writes a treatise on the subject thinks his the best. We might say, when comparing these works—

"There's but one wise man in the world,
And who d'ye think it be?
'Tis this man, that man, t'other man,
Every man thinks 'tis he."

### *Retroversion of Uterus where Fundus is Bound to Hollow of Sacrum by Peritoneal Adhesion.*

This form of uterine displacement is very difficult to treat, espe-

cially when it has existed for a long time. When the adhesion is very limited and recent, it may be broken up and a favorable prognosis can almost invariably be given, but when years have elapsed and the adhesion is extensive, it would be better to adopt the do-nothing treatment, were it not for the fact that sterility is the rule in nearly every case. The very forcible pleading of husband and wife in such cases, the great desire for offspring, make us sometimes undertake to remove, if possible, the cause of sterility.

The only plan of treatment that I have found to result in any permanent relief is the forcible separation of the uterus from the sacral wall. This is done with a steel sound made for the purpose, and which, I have no doubt, is in every day use in the profession. After improving the general health as much as possible by general treatment, the os is sufficiently dilated with tents or by the use of uterine dilators, the patient anæsthetized and placed upon the table on left side with knees drawn up to chest. Erich's or Sims' speculum (Erich's is better) is placed in the vagina, the tents removed and the aforenamed sound is introduced up to the fundus. Then, taking hold of the sound with both hands, the uterus is torn away from the sacral wall and pressed forwards until it can be felt in the suprapubic region; the uterus is then fixed by the use of cotton or sponge tampons and kept so for from eight to sixteen days, according to circumstances. After inflammation has subsided, Hodge's pessary, or better, Smith's modified Hodge, is used to keep the uterus in position. This should be worn for an indefinite period—at least until there is reason to believe that the uterus has been fixed in its normal position. This having been done, and the necessary tone given to the nervous system, it is more than likely there will be no further trouble.

I do not claim that this is a new mode of treatment; it has been practiced for years, and, perhaps, if Herodotus and other ancient writers were living to-day, they could tell of such treatment in their day. Aïtius (*Thomas on Diseases of Women*) speaks of a uterine sound, passed into the uterus and employed as a repositor, and advises that displacements of the uterus should be corrected *specillo et digito*.

### *Pelvic Cellulitis.*

Pelvic cellulitis should properly be classed under the head of

obstetrics, as nearly every case is a result of parturition, but as there are exceptional cases, we will speak of it under the head of gynæcology.

As this is a well-recognized disease, and one that has been so successfully treated, I shall not rehearse what others have written, but wish to report a case, the like of which is seldom seen by the general practitioner.

The patient had been delivered by a midwife, was not allowed the recumbent position during the second or third stage of labor, but was forced to stand on her feet and hold to the bed-post. After the placenta had been withdrawn by the cord blood poured profusely from the uterus, the patient fell in syncope, and was then laid upon the bed. I was called in five days after delivery, and found the patient with high fever, abdomen much swollen and tender. There was slight peritonitis with all the signs of pelvic cellulitis. She informed me that the midwife had handled her roughly, that she had "gouged and torn" her in a fearful manner. With all the aid I was able to give she went on from bad to worse, until her abdomen was a mass of abscesses. I made a free incision in left inguinal region, which discharged an enormous amount of pus. Soon there were two other points, one in median line, and the other in right inguinal region, that had to be opened. Still the alarming symptoms did not abate. Then there was a large amount of pus discharged per rectum. I was sure this would give the desired relief, but not so. Two days later I found pus presenting about right labia minor; this having been freely opened and the pus allowed to escape, the alarming symptoms began to subside.

Although this point discharged pus for a month or more, my patient convalesced steadily and made an excellent recovery.

The only feature that is worth noticing in this case is the number of points of exit by which the pus escaped—three points through the abdominal wall, through rectum and pudendum.

Dr. Savage (*Thomas on Diseases of Women*) reports a case in which the points of opening were vagina, bladder, rectum and inguinal region.

Treatment was directed to keeping up patient's system as much as possible. Internally I used iron, quinine, nux vomica, ergot, opium and stimulants when necessary.

*Alexander's Operation for Retroversion of the Uterus.*

Retroversion of the uterus can generally be corrected by the use of cotton or sponge pledgets or the ordinary retroversion pessaries, but there are exceptional cases in which, on account of pain and tenderness, the patient is unable to wear any hard instrument.

Sometimes, by using vaginal injections of strong solution of kali brom., the tenderness and pain will subside sufficiently to enable the patient to wear a hard rubber instrument. But when all such efforts fail, Alexander's operation offers the best chance of relief This consists in exposing the round ligaments at the external ring, and drawing them out through the ring, thus lifting the uterus; then securing the ligaments near the external ring, thus fixing the uterus in its new position. It is better, in my opinion, to cause the ligaments to attach to the face of the pubic bones between the spine and symphysis, instead of to the loose tissue, for this tissue, being in itself yielding, might in time give way and allow the uterus to again fall back into hollow of sacrum.

After completing the operation tampon the cul-de-sac to support the ligaments. Keep the patient in bed three, four or five weeks, then introduce Hodge's or Smith's pessary, and let this be worn for at least two months, when it will be found that the ligaments are capable of holding the uterus in its normal position.

*Amenorrhœa and Dysmenorrhœa—New Treatment.*

It is claimed by Chéron (*Philadelphia Medical Times*) that the action of santonin on the vascular system, and its effects upon the muscular fibres, make it useful in amenorrhœa and dysmenorrhœa, especially in those forms where the malady is dependent upon adynamia, anæmia and chlorosis, and more especially when the menses are as yet imperfectly established. It not only relieves the retro-ovarian congestion, but acts also as a tonic to the general system. Three-fourths to a grain should be given *ter in die*

*Retro- or Anteversion of the Uterus, Complicated by Vesico-Vaginal Hernia or Cystocele.*

Much time has been spent in trying to devise some plan by which to overcome this much-dreaded trouble which old physicians say has been treated by them for years without any apparent benefit—a

trouble for which no physician or gynæcologist could, heretofore, give a favorable prognosis. In the early days of my practice I met many cases of this obstinate disease. I tried to give relief by every conceivable method—used Meig's ring, figure of 8, Thomas' anteversion and Gariel's air pessary, but nothing gave satisfaction. I consulted older physicians, but they simply discouraged me by telling of their sad disappointment and ill-success in treating this trouble. Finding that there was nothing to be done but follow the old routine of treatment, I set to work and had an instrument made which is giving entire satisfaction. It fixes the uterus in its normal position, no matter what the displacement may have been, whether anteversion, retroversion, prolapsus uteri—either of the three degrees—while at the same time it lifts the bladder and roof of the vagina to their normal position and keeps them there.

The instrument is not difficult to introduce, and when in position there is no hard substance against which the vaginal portion of the cervix can press. It is indestructible, and when in position it cannot come away of itself.

This instrument is not only useful in the above-named disease, but is valuable in any case of vaginal hernia where the tumor is formed in front of the broad ligaments. These tumors may be formed by a prolapsed vagina, a portion of omentum, a portion of intestine, or omentum and intestine may come down simultaneously and form the tumor.

### *An Anomalous Uterus.*

The patient is forty years of age, the very picture of good health, masculine appearance, considerable dark moustache, married eighteen years, but has never borne children.

She suffers at times with extreme nervous excitement, palpitation of the heart, etc. All of these symptoms are believed to be the result of sexual excitement without reaching a *healthy culmination.* The cause of this is explained in three words—an impotent husband.

The husband was advised to make frequent attempts at sexual intercourse with a hope that the desired result might finally be brought about. But this only excited the wife and made her nervous attacks more frequent and severe. The symptoms growing more and more alarming, I was called in. I ascertained that she was almost invariably seized with these attacks immediately pre-

ceding or following menstruation. Supposing that the cause might be, in part, due to some interior trouble, I made an examination and found the following: The hymen was only partly ruptured, the vagina small and rigid, and it was with difficulty that the uterus could be satisfactorily examined, but, by the use of Erich's speculum, a full view was obtained. It was hard to determine what was presenting—a fold of lax membrane enveloping a hard body. A fold of membrane covered the vaginal portion of the uterus similar to the prepuce in the male. When this had been stripped back a normal cervix presented; it was not unlike a short and most perfect male penis. We can hardly say whether, if the husband had been competent, this would have been a cause of sterility. I asked the patient to go with me to Dr. Summerell's office, where a consultation was had. We were unable, under existing circumstances, to say whether the abnormal condition of the uterus would have prevented conception or not.

As to treatment, it would have been an easy matter to divide the membrane, which would have laid bare the cervix, but we thought as the patient was nearing the menopause and the husband impotent, we would let it alone. I afterwards used a small ring pessary for a long time, which kept the fold drawn back over the cervix, and now, on examination, the os presents, the fold of membrane being somewhat retracted. The menstrual periods are passed with little or no pain, and the general health of the patient remains good.

# REMARKS ON OBSTETRICAL TEACHING.

By J. Edwin Michael, M.A., M.D., Baltimore, Md., Professor of Obstetrics in the University of Maryland.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

If there is any one thing which distinguishes modern medical teaching from that under which our fathers, and, indeed, most of us, grew up, it is the decadence of the didactic lecture and the advance in the adoption of the demonstrative methods. Laboratory instruction has indeed been pretty closely associated with the teaching of the elementary branches for many years and with an ever-increasing importance. Anatomy has had its dissecting rooms, physiology and chemistry their laboratories. Medicine and surgery have been taught in clinics, as have also the various specialties, where the student looks on from a safe distance and has to accept the statements of the clinician on faith. The clinic must, from the the very nature of humanity, in many cases, degenerate into an exhibition of the skill of the professor rather than a means of instructing the student, and the resulting graduate enters the field of professional life with too limited an acquaintance with the contingencies with which he will have to deal, to justify the reposition of much confidence in himself. This deficiency in actual contact with disease and unfamiliarity with the use of means and measures indicated, resulted in the hegira of American medical students to Europe, where the abundance of clinical material and the facilities for closer clinical study were to be had. The deficiencies of many of our schools of medicine in this particular are still quite obvious, and the success of the post-graduate schools in the larger cities of the country is satisfactory proof that the degree-giving institutions do not fully prepare their students for actual clinical work.

The branch about which we are to speak has probably suffered more than any other from the methods of teaching formerly in vogue, and still it is one in which actual clinical teaching is perhaps more of a desideratum than any one of the departments of medicine. When a young graduate enters the lying-in chamber for the first time and reflects on the fact that he has two lives depending on his skill, and that he has not had the smallest opportunity to perfect himself in the practical workings of the theoretical obstetrics he has learned at college, he may well pause before he assumes such

grave responsibility. He may well find fault with the *Alma Mater* who has given him a diploma which claims for him such skill as the case may demand without once putting him to the test of actual practice. And yet this is the state in which most of us began practice. It is true that the fearful mortality which attended the attempts to form obstetric clinics before the antiseptic era was a good and sufficient reason for giving them up, as had to be done in some cases, but the fact remains that if a student is launched upon the public with no actual training, his earlier patients have to suffer while he is gaining experience. Fortunately, the introduction of the antiseptic system has made the obstetric clinic a possibility, and even reduced the mortality and morbidity of well managed hospitals below that of private practice, and there is now no excuse for neglect of clinical teaching in obstetrics which does not apply equally to other branches. Medical schools are availing themselves of this advantage all over the country, and the result must be that our younger brethren enter the field of practice much better equipped than we did. The problem which now faces teachers is, how to best utilize the abundant obstetric material which is to be found in all large cities in such way as to yield the best results in teaching with the minimum of damage to the patients. One point of great consolation presents itself here. The patients who come under care in an out-patient obstetric clinic are such as would otherwise be the patients of the most ignorant, and hence most dangerous, class of midwives, and there is not the slightest doubt that they are safer by far with the students who attend them than they would otherwise be.

The object of obstetrical teaching is to prepare the student to practice the art of midwifery in the most approved manner. I propose, in this paper, to consider the subject from that point of view, and to discuss with some detail the manner in which this object may be best attained. We have in obstetrics, as in the other branches of medicine, an art as well as a science to deal with, and we would be in error as much if we should undertake to teach the science without reference to the art as we would be if we should take the opposite course. In order to do our work thoroughly, we must combine the two. First, the elementary principles should be taken up and the groundwork laid well by a thorough inculcation of the anatomy and physiology of the parts and processes involved. Then

should follow the pathology. In other words, the didactic course, either by lectures or text books, or both. Contemporaneously with this there should be demonstrations and practice by means of artificial paraphernalia, the bony pelvis, the fœtal head, the fœtal cadaver, the manikin, together with practice in diagnosis and manipulations with or without instruments. Clinical work in the lying-in hospital under the supervision and instruction of those competent to give it, should be next in order, and this should be succeeded by actual attendance upon cases in the out-patient department, under limitations as to the contingencies in which aid shall be summoned, and with such aid always at hand. Let us consider these matters somewhat in detail :

1. *The Didactic Course.*—I regard the didactic course as the least important of the means which are to be used in the instruction of the student. It is true that some men learn better with the ear than with the eye, and this is particularly true, as a rule, of the men who are the least well educated, and for the advantage of these it is well that a didactic course should be given. Moreover, there are certain explanations and demonstrations which should always form an important part of such a course, which serve to make facts already partially understood more clear. The didactic course serves also as a ready means of communication between student and teacher, if the teacher makes himself approachable and shows such willingness to answer questions and clear up difficulties as he should. Those little five-minute talks which follow every lecture do more in many instances to clear the mind of the student than much regular study. In the main, therefore, I am inclined to look with some favor on the didactic course and to regard it as a boon to the average student, but it must not be forgotten that it gives the student but little more than can be attained from the intelligent study of a good text-book.

2. *By Artificial Paraphernalia.*—When we come to consider the effect of actual handling and study of the bony pelvis and fœtal head, we have to deal with the only means by which the student really ever comes to appreciate the mechanism of labor. By this means alone, with the parts disembarrassed of the softer structures which confuse us so thoroughly, even in the study of the same process in a real clinical case, he can acquire a practical familiarity with the ever-changing relation of the diameters of the fœtal

head and maternal pelvis and the consequent substitution of diameters which can pass, for those which cannot. The fœtal cadaver is invaluable, even if it were to be used alone as a means of study of the parts with which we must deal clinically. The sutures and fontanelles, as demonstrated on the skull, are very different to the touch made through the edematous scalp. But when the fœtal cadaver is used in connection with the manikin, we have an arrangement which, for all mechanical purposes, comes very near the real case. Here the first principles of palpation, an art too much neglected, may be learned. Diagnosis by touch of fœtal presentations and positions is almost as good as in the clinic, and, so far as version high and low forceps and the graver capital operations are concerned, the artificial arrangement about equals its prototype. One must not forget that in this kind of artificial study the student does not confine himself to the attainment of facts and methods. A most important part of his work is the acquirement of manipulative dexterity which will stand him in such good stead in his actual work. This point is more deeply impressed on me by my experience in the dissecting room as demonstrator of anatomy. I often had occasion to call the attention of students to the fact that their dissecting-room work was not only a means of learning anatomical facts, but that it was at the same time their first lesson in operative surgery, and that unless they learned to dissect well they could not ever expect to operate well. So the first application of forceps to a man who has had the advantage of this artificial training is not the same ordeal it is, or ought to be, to one who has not been so fortunate. He has only to consider the clinical conditions. The operative technique comes as second nature to him.

3. *Hospital Work.*—So far as American physicians, especially those who have not had the advantage of foreign clinics, are concerned, the later generations only have had the advantage of training in obstetrical hospitals. If most of us would only look back over our careers and picture the circumstances which surrounded our first entry into the obstetrical chamber, I think we would find ourselves in a position to envy our younger brethren in this matter. My own obstetric training, when my diploma was handed me, consisted in having seen one forceps operation on a poor woman, who died three or four days later of child-bed fever. I had never auscultated, palpated or otherwise examined a pregnant woman. My

first forceps operation was done far from help in a somewhat remote country district, and, although it terminated happily, it was more by the grace of God than in virtue of any preparation I had had for it, and reflection upon the circumstances which surrounded it and my then utter unfitness for its performance, makes me shudder at my own boldness. When I think of this, as I look over the lists for work in hospital, I am more and more impressed with the improvement which has taken place in obstetrical teaching. Hospital work is the real test and training which logically completes what has gone before. The obstetrical work in a modern hospital should represent the best practice of the day. Of course the work will necessarily vary with the character of the teacher who has it under control. This is, however, equally true of the other teaching of the department. My own idea is that it should be advanced, though conservative. Modern obstetrics should be taught, but the methods should have as much fixity as true conservatism will allow, and should not be changed with every veering of the winds of doctrine. When an advance is clearly demonstrated as correct and has had sufficient clinical support to maintain its position, it should become a part of the hospital technique Students need a certain amount of dogmatism, and it is one of the most difficult tasks of the teacher to graduate the proportion. Rules should be definite and so arranged to cover, so far as it is possible, all probable contingencies. This inculcation of exact method is in itself invaluable to the student. In no respect is this so apparent as in the applications of the antiseptic method of treatment and preparation. Such a thorough grounding in these all-important matters as one gets in a well regulated hospital will last a life-time. When possible, the hospital should also be made the school for ante-partum diagnosis, and the material should be used largely for instruction in auscultation, palpation and touch courses. I have no doubt that the neglect which these things confessedly suffer at the hands of the general practitioner is, in large part, due to the insufficient training in them which the student receives. There will doubtless be much improvement in this in the near future.

4. *Out-Patient Work.*—It happens, unfortunately, that in many medical schools the clinical instruction in obstetrics is confined either to hospital work or to out-patient service. It is better, where possible, to have both these departments, for out-patient service

follows as logically the training in hospital, under the direct supervision of the resident physicians, as the latter does the preparatory work with manikin and cadaver. Out-patient work, properly conducted, is actual practice with the important advantage that the student engaged in it is always at liberty to call in aid whenever required, and should, in fact, be instructed to do so. I do not think it right to entrust such patients to the absolute control of even advanced students who have had hospital training. It is true that most students would have the proper sense of responsibility and would call in aid at proper times, but there are some whose zeal outruns their knowledge and whose desire to distinguish themselves is apt to make them reckless. Therefore a system of rules and limitations is needful in order that all may know not only when they may, but when they must, call for a consultation. Another point of great importance in the conduct of an out-patient department is the cultivation of a proper demeanor towards the patient. If there is any class of human beings who can legitimately claim all possible kindness and consideration from men it is the class we deal with in such a clinic. Young men are, as a rule, well disposed, and a little encouragement in the direction of courtesy to patients goes a long way in the direction of establishing a proper line of conduct. Careful attendance after confinement should be insisted on, and the keeping of a daily record of vital signs should be made a matter of duty. The conduct of such attendance and the revision of the records of the cases practically compels close observation of the case during the lying-in period, and teaches the student in spite of himself. Thus one is taken gradually and safely from generals to particulars, from theory to practice, under the shielding wing of his *Alma Mater*, and at the end of such an experience if he be not able to walk alone, he must attribute the fault to himself, and not to lack of opportunity.

I consider no apology necessary in laying this matter before you. When I reflect on my own obstetrical capacity at the time of my graduation and on that of those of my companions with whose acquirements I was best acquainted, and presumably of those of the generality of medical graduates of my time, I think I am in a position to appreciate the difference between then and now; and I confess that I feel proud to know that I am doing something towards improving the former state of affairs. I have tried to make

my clinic correspond to scientific obstetrics just as a chemical or physiological laboratory corresponds to, and supplements, the didactic instruction in those branches; in other words, to make the teaching of the branch objective and tangible. No part of the general practitioner's work is more important to him or his patients than obstetrics, and I deem it the duty of the medical schools to prepare him for it in the most thorough manner.

# TREATMENT OF PNEUMONIA.

By A. B Pierce, M.D., Weldon, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

In giving to the profession a synopsis of my treatment of pneumonia, I do not claim anything new as to the remedies employed, but I claim that their combinations and their peculiar and specific action are the essential points in the treatment of the disease. Neither do I intend to enter into any disquisition on the pathology or causes of the disease; but I shall take it for granted that every practitioner of medicine knows a case of pneumonia, when he sees it, unless occasionally it is masked by other symptoms, overriding and concealing the true characteristics of the disease.

In early life, in the commencement of my practice, I treated many cases I met with with the lancet, tartar emetic and mercury, and had good success at that time, with this exception, the cases were more protracted, and convalescence was more tedious.

I have bled some cases as much as four times for four consecutive days, and every time the remedy seemed to give relief, and the case ended in final recovery, but as I said before, the recovery was slow. On one occasion, I recollect, after having bled the case four times, I left some Hive syrup, to be taken 30 drops at a dose, as an expectorant. The nurse, through mistake, gave a tablespoonful of the medicine at a dose, which produced hypercatharsis, but to my surprise, on my return to the patient, the symptoms were ameliorated, and the case went on to a favorable termination. So that, as some have been taught, hypercatharsis does not always produce unfavorable results in the treatment of pneumonia, and especially pleuro-pneumonia.

I recollect two other cases in my practice where I left my patients during the night, and on my return next morning I found the patients, during the night, had twenty-five evacuations from the effects of repeated doses of calomel, and, to my surprise, the temperature had decreased from 104° the evening before to normal, and the patient was convalescing.

Coming down the line of practice for the last twenty years, either

from a change in the sthenic character of the disease, or some other unknown cause, I have pursued a different treatment of the disease.

The combination of the remedies and the specific action of the drug is what I contend for as most essential in the treatment of the disease.

When called to the case early in the disease I direct my forces to break up the congestion, or engorgement of the lung, before it gets a strong hold upon the tissues, and for this purpose I commence immediately on the following prescription :

℞.—Calomel..... grs. ij.
Dover's powder..... grs. iij.
Sulphate quiniæ..... grs. x.
To be given at a dose, and repeated every two or three hours.

If this does not break up the engorgement about the lungs by the third or fourth day, and produce a reduction of the temperature and lessen the frequency of the pulse, I continue the same remedies in smaller doses, say the following formula :

℞.—Calomel..... grs. ss.
Dover's powder..... grs. iij.
Sulphate quiniæ..... grs. v.
To be given at a dose, and repeated every two or three hours.

If this treatment is pursued for several days in most cases the disease will generally end in resolution about the seventh or ninth day, or twelfth at the farthest; and if you can succeed in producing the specific effects of the mercury at any time the symptoms will immediately cease, and the case will go on to convalescence. I have seen the specific effects of the mercury to take place when the temperature was 104° or 105°, and the pulse 120, and on the accession of the ptyalism the pulse and temperature would immediately go down to normal.

In a practice of nearly fifty years, I have seen but one case that did not yield to ptyalism, and that was a very old person.

My object then is, if I cannot break up the engorgement of the lungs in the first stage of the inflammation, to try to produce the specific effects of mercury. And I am of the opinion that the combination of quinine and Dover's powder, or some other prepa-

ration containing the properties of opium, has a tendency to hasten the peculiar effects of the mercury.

In corroboration of my views concerning the specific action of mercury and its effects, Dr. C. I. Gee, who has charge of two of the Penitentiary farms on the Roanoke river, informs me that in every instance where he has been enabled to produce ptyalism the disease has instanly yielded. In the winters of 1889–'90–'91–'92 he had about 25 cases of pneumonia, in which he succeeded in producing the specific effects of the mercury, and in every case the symptoms yielded on the accession of the ptyalism. In pneumonia of a high grade of temperature it is very hard to produce the specific effects of the mercury.

Perhaps at some future day this difficulty may be overcome, and some means may be instituted to produce the specific effects of the mercury, when desired, which I should consider a great *desideratum* in the treatment of pneumonia.

# BIOGRAPHICAL SKETCH OF DR. JAMES J. PHILLIPS, DECEASED, OF EDGECOMBE COUNTY, HONORARY MEMBER OF THIS SOCIETY AT THE TIME OF HIS DEATH.

By S. S. Satchwell, M.D., of Burgaw, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

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It was a frequent remark of the illustrious Dr. Valentine Mott, of New York City, himself the Napoleon of surgery in his day in this country, that he was afraid to meet a country physician in consultation. He said that necessity imposed upon country practitioners such habits of reading and study, independence of thought and self-reliance, that he not only found them well posted and abreast with the times, but able to give him information and to make to him valuable suggestions. He said that the average city physician was not the equal, in knowledge and skill, of the observant and well-read country doctor. The city practitioner, he said, was accustomed to seek consultation in important cases from the usages of the profession and the customs of society, especially in relation to young city and town physicians. Not so in the country practitioner, who, in his habits of self-dependence, was unable to lean on others, but compelled, even in emergencies, to depend upon his own resources as a general thing. This, he contended, gave the country physician habits of investigation and study, a spirit of self-reliance and investigation, a breadth of view and mental discipline, and a readiness and skill to meet occasions of trial and peril and danger, which give boldness and pluck and success.

One of the ablest and most distinguished physicians and brightest ornaments of the medical profession of our State was that celebrated country practitioner, Dr. James J. Phillips, of Edgecombe. One of the earliest honorary members of this Society, it is meet that, in collecting and preserving our jewels, we should perpetuate his memory, his high abilities and his usefulness.

Dr. Phillips was born in Edgecombe county, March 12th, 1798, and died there April 10th, 1874. His father was likewise born there and died there. His grandfather came from England, and was one of the earliest settlers in our State. The father of our

subject was a man of means at one time of his life, but failed when his son James was 18 years of age. This compelled him to stop his studies, and hence he never had the benefit of a collegiate course He entered the office, as a medical student, of Dr. Cullen Battle (father of General Battle, now of Newbern), and after studying medicine with him, took his course of medical lectures in Philadelphia. He settled in Edgecombe upon his return, and entered at once upon a large and lucrative practice, and remained there until the day of his death. His practice extended throughout Edgecombe into Nash, Wilson, Wayne, Halifax, and occasionally to remoter portions of the State.

He enjoyed public confidence to a rare degree, and his services were assiduously sought far and near, in all difficult and dangerous cases of medicine, obstetrics and surgery. He stood high with his neighboring professional brethren, who cherished for him the highest personal and professional regard, and considered themselves fortunate, at any time, in being thrown into social and professional intercourse with him, and felt themselves benefited by his consultations with them in difficult and dangerous cases. During these earlier days of his laborious practice there were scarcely any railroad facilities of travel, and he was compelled to make his professional visits in his own conveyances. He was a large man, and, when in his prime, was fine looking. Seldom do our eyes behold a more striking personage. As I know from personal observation and experience he would command attention and notice in any crowd he entered and at any time and place.

He was a great reader and always an indefatigable worker. All his life he held to the doctrine, and acted upon the maxim, that industry and energy are essential to success, and that life gives nothing to mortals without great labor. Fond of every department of knowledge and of all the natural sciences, he was especially fond of the science of medicine, and devoted every leisure hour to its study and investigation, and kept abreast at all times with its improvements, its discoveries and its progress. He had great fondness for geology and chemistry, and in his day no one in the State was better posted in this branch. He was learned, not alone in the science of medicine, but in agricultural chemistry. He was a scientific, practical and successful farmer, as so many of our best physicians are, and made money by farming as well as by the practice of

his profession. He was among the earliest, if not the first, physician and farmer of the State, who advocated and demanded that farmers should study and possess themselves of a knowledge of chemistry, that it might be applied to practical agriculture. This advocacy brought about an interesting discussion in 1857 between him and Professor Elisha Mitchell of our State University. It attracted the attention of our leading agriculturists and physicians and other scientists of that day, and Dr. Phillips, as a plain, modest, devoted country physician, gained rich laurels for scientific research and a high order of mental endowments. The views and arguments of Dr. Phillips in this controversy gave a new impetus to the cultivation of the soil on scientific principles. This discussion was brought about in consequence of an address delivered by Dr Phillips before the Edgecombe Agricultural Society in 1852. It was the first address delivered before the first Agricultural Society in North Carolina. It combined, with other causes, in establishing him as a man of original powers and bold, independent thought—able to impress himself—and he did impress himself, upon the times in which he lived. The criticisms and views consequent upon this able address and his discussion with Professor Mitchell, aroused the attention of leading citizens, especially of Edgecombe, and in practical and successful agriculture, brought Edgecombe to the front in farming. Often have I heard the Dancys, of Edgecombe, and the Hon. R. R. and J. L. Bridgers, of that county, speak in warm praise of Dr. Phillips as a pioneer man in that entire section of the State, as a leader of men and measures, both within and without the profession. As a man of high order of intellect and as a practitionsr of rare judgment and skill, and a gentleman in the full sense of the term No one knew him better and honored and loved him more than our late lamented, honored and usetul member, Dr. William George Thomas, of Wilmington. He had the amplest opportunities of knowing Dr. Phillips while he (Dr. Thomas) practiced in Tarboro, and loved to dwell upon his rare virtues and high character as a man, citizen and physician.

The high qualities of his head and heart, his superiority as a physician, were proverbial in his day. His loyalty to his friends, his great resolution and energy of character, his strict integrity and generous disposition, his readiness to aid poor and meritorious young men, struggling for success, his love of North Carolina and

his devotion to his country, were interwoven in his nature and were leading attributes of his strong character.

He thought for himself and acted for himself, as is the custom of our ablest and best men, and he thought strongly. He possessed directness of thought, and when occasion suggested spoke forcibly and in epigrammatic style. Like most men who think much and think deep, he did not talk much; but to intimate friends who approached him on subjects with which he was familiar, he was free, communicative, very interesting and instructive. An eminent physician said to me a few years ago that, though he was deaf, and in ordinary conversation did not well understand the human voice, Dr. Phillips could diagnose a case of disease quicker by merely looking at it than any medical man he had ever met. He had the capacity of judging correctly of men, whether he passed upon them as patients or as mere casual acquaintances in social life or public company, and this ready knowledge of human nature was of great benefit to him in the affairs of life.

He was a man of much prominence in his section of the State, and a physician of acknowledged eminence and distinction. He was a man of such high intellectual endowments, such freedom from deception and guile, such openhanded hospitality and frankness of manner, and withal so benevolent, generous and public-spirited, that he was honored and esteemed by all who knew him, and when good opinion was worth deserving or seeking. These sterling traits made him hosts of friends, who loved him while living and honored him in death. Such was the make-up of this useful and noble man and physician that he would have attained prominence in any community and eminence in any calling or occupation. Had he settled in some larger city as a medical practitioner, instead of clinging, as he did, with almost idolatrous affection, to North Carolina, he would have attained to shining eminence in the ranks of the foremost practitioners of any of our cities.

He was possessed of that mild dignity of appearance and manners, and yet boldness and decision—that spirit of enthusiasm and air of originality and self-confidence, and that independence and go-aheadativeness which impress men upon the communities in which they live, and make them natural-born leaders of men. He kept pace with the standard publications of the day, and, amid the interruptions and toils of an arduous and self-denying profession, kept his

taste gratified, his mind nourished and his spirit refreshed by habitual recurrence to these rich fountains of instruction and unalloyed pleasure.

Dr. Phillips was happily married to Miss Harnett A. Burt on the 23d of April, 1834. She was the daughter of Mr. William Burt, of Hilliardstown, Nash county, whomoved to Tennessee in 1840, and soon after died.

Fourteen children were the fruits of Dr. Phillips' marriage. Of these four died in infancy: Sallie T., the wife of that brave Confederate Colonel, F. M. Parker, still living in Halifax county, in this State; the Hon. Fred. Phillips, a leading citizen of Tarboro, who for a number of years adorned the bench as a Superior Court Judge of this State; Susan Sims, who intermarried with Mr. J. J. Battle, of Edgecombe county, and died in 1886; James J , who was killed in the last cavalry charge in Virginia, not having heard of the surrender, and who was only 19 years of age; Joseph B , of Nash county, a Representative of that county in the Legislature for the last two sessions; John W., living in Edgecombe county; Harriet A., who intermarried with Hon. B H. Bunn, member of Congress from the metropolitan district, and a citizen of Nash county; Laura Maud, the wife of John H. Arrington, Esq., of Nash county, and son of the late Hon. A. H. Arrington, former member of Congress from this State; Lizzie P. intermarried with G. C. Battle, who died in April, 1891, now living in Edgecombe county; Walter E., at present a student at Cambridge, Massachusetts, but his home is in North Carolina.

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